The Hunterian Lectures

ON

THE TOPOGRAPHICAL ANATOMY OF THE ABDOMINAL VISCERA IN MAN.

Delivered before the Royal College of Surgeons of England on March 4th, 6th, and 8th, 1901,

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LECTURE III.[1]

Delivered on March 8th.

THE PERITONEUM ON THE CÆCUM.

MR. PRESIDENT AND GENTLEMEN,—In four cases bands of various sorts ran along the back of the cæcum, but none of them represented a true meso-cæcum. The peritoneum as it was reflected from the back of the cæcum or the ascending colon on to the body wall externally presented in many cases a well-marked fold passing to the upper part of the iliac crest.

THE PERITONEAL FOLDS AND POUCHES IN THE NEIGHBOURHOOD OF THE ILEO-COLIC JUNCTION.

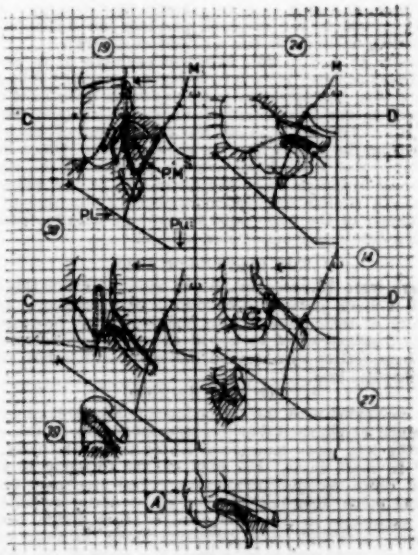
These were so fully described by Mr. B. G. A. Moynihan[2] of Leeds in his lectures two years ago that very little need be said concerning them (see Fig. 8). There are three, or sometimes four, folds to be considered, and three, or sometimes four, fossæ. We will adopt a nomenclature after Lockwood and Rolleston and Berry and speak of them as: (1) the ileo-colic fold and fossa; (2) the ileo-cæcal fold and fossa (or ileo-appendicular); (3) the meso-appendix; and (4) the retro-colic fold and fossa (occasionally two fossæ, internal and external). Very diverse and perplexing are the names and descriptions given to these folds and fossæ by some writers. It seems needlessly so.

1. *The ileo-colic fold and fossa.*—There is nothing to add to the current descriptions of this fold. There were only five cases in which it was specially drawn as bounding well-defined and considerable fossæ; and the many other cases in which it was present were passed over, as the detailed examination and record of these fossæ did not form a part of this research. Case 19, Fig. 8, shows this fossa very well.

2. *The ileo-cæcal fold and fossa* (Fig. 8, outline A).—In most fat subjects this fold contains a considerable amount of fat and in some cases it was described as loaded with fat. A small recurrent branch of the appendicular artery is often found in it, so that Mr. Treves's[3] description of it as the bloodless fold is not always applicable. In 24 cases, or 60 per cent., the fold was well marked, bounding more or less well-defined fossæ in 23 of them. The superior border of the fold is attached for a variable distance (usually about four centimetres) along the ileum at its termination; the outer border—directed somewhat upwards—is attached to the cæcum; the lower border is attached to the back of the cæcum, adjoining the appendix, to the appendix itself or to the meso-appendix for a variable distance; whilst the internal border directed downwards and inwards with various obliquities is free, somewhat crescentic, and longer than the others.

3. *The meso-appendix.*—The original attachment of the meso-appendix to the back of the mesentery is progressively displaced by the growth of the cæcum and colon to the back of the large intestine. The positions of the attachments of the meso-appendix classified on this basis occurred in the 40 cases with the following frequency: (1) wholly to the inferior aspect of the mesentery, eight cases; (2) partly to the mesentery, partly to the back of the cæcum, 13 cases; (3) wholly to the back of the cæcum or ascending colon, 15 cases (these occurred specially in those cases in which an ascending meso-colon was more or less marked); and (4) irregular attachments, three cases where the appendix was bound by peritoneum to the back of the large intestine and one case in which it was bound to the floor of the iliac fossa. The long or free border of the meso-appendix can usually be traced as a small sickle-shaped band almost to the extremity of the appendix.

FIG. 8.



Shows the lower end of the ileum, the commencement of the large intestine, the vermiform appendix, and the lines of the peritoneal attachments on the centimetre scale from various cases. M, L, the middle line. C, D, the lower transverse abdominal line. S, sacral promontory. PM, psoas muscle. PL, Poupart's ligament. Pu, pubes. ω, umbilicus. ——>, highest part of iliac crest. —|—|—, line of attachment of the mesentery. — — —, attachment of peritoneum behind the large intestine. (The cases are referred to in the text.)

4. *The retro-colic fold and fossa* (Fig. 8, Cases 19 and 33).—Berry[4] divides the fossæ behind the cæcum or the beginning of the ascending colon into the internal and external. In these cases only one—the internal—appeared to be of any consequence. A fold of peritoneum passing to the back of the cæcum or the first part of the ascending colon frequently divides the region behind the large intestine at this part, external to the mesentery and the meso-appendix, into inner and outer parts. The outer part may be converted into a wide pocket by the reflexion of the peritoneum at a higher level from the back of the ascending colon on to the body wall near the upper part of the iliac crest, giving it a definite upper limit. Except in five cases such an external retro-colic pouch was so wide and shallow that it could not fairly be called a pouch. In one case only was it so well defined that it might possibly have become of clinical importance. The appendix does not pass into it.

The internal or proper retro-colic pouch is of much importance. It was well defined in eight cases, or 20 per cent. It often contains the root of the appendix and occasionally the appendix is wholly or partly recurved into the pouch. A glance at Fig. 8 (Case 33) shows quite well how in such a case further absorption of the peritoneum by the colon would have produced an appendix wholly behind the peritoneum, as in Case 14. Case 27 shows an interesting position of the appendix. The greater part of it was firmly bound by peritoneum to the back of the large intestine; the root of the appendix was situated behind the cæcum and the tip projected from out of a pouch external to the ascending colon at the level of the iliac crest. The case apparently represents an appendix which was recurved upwards outside the reflexion of the peritoneum on to the back of the ascending colon, the peritoneal folds having become obliterated at its proximal part.

[1] Lectures I. and II. were published in THE LANCET of March 16th (p. 759) and 30th (p. 911), 1901, respectively.

[2] Arris and Gale Lectures, 1899; also Retro-peritoneal Hernia, London, 1899.

[3] Op. cit.

[4] The Cæcal Folds and Fossæ, &c., Edinburgh, 1897.

THE PERITONEUM ON THE COLON.

There were six cases, or 15 per cent., which presented an ascending meso-colon and nine cases, or 22·5 per cent., which presented a descending meso-colon. The figures are somewhat less than those that Treves[5] gives, but it must be remembered that they only refer to those cases in which the folds were definitely existent. There were doubtless other cases in which for surgical purposes an ascending or descending meso-colon was as good as present.

Cases 8, 18, and 38 were excellent examples of an ascending meso-colon and it is interesting to notice that in all of them a long free appendix passed upwards behind the colon external to the attachment of its mesentery (see Case 8, Fig. 10). The distance of the attachment of the meso-colon from the middle line as shown by the dotted line in the figure was that of the average position of the normal peritoneal reflexion on to the inner side of the ascending colon. A similar description applies to the line of the attachment of the meso-colon in eight of the nine cases in which a descending meso-colon existed.

THE CYSTO COLIC FOLD.

There were 12 cases, or 30 per cent., in which this fold, which I have previously described, was present. In all but two of them there existed that which will be described as the first and chief variety of the transverse colon—viz., one characterised by a marked and more or less firm downward hepatic loop.

THE MESO-SIGMOID.

In connexion with the meso-sigmoid (Fig. 9) it cannot be too much emphasised that the sigmoid flexure of the colon over the left psoas muscle has a very short mesentery. In fact, in most cases, this part of the intestine is firmly bound down by the peritoneum. The free part of the sigmoid colon, hanging into the pelvic cavity or having a free excursion in the abdomen, is that which has its mesentery attached passing upwards along the inner border of the left psoas muscle from about the plane of the anterior superior iliac spines.

The normal meso-sigmoid, as represented in Fig. 9, Case 17, consists of two limbs. The *outer limb* begins over the left psoas muscle about the plane of C, D,[6] and passes inwards and downwards to a point just internal to the left lateral line, a little above the level of the anterior superior iliac spine, from which it turns upwards as the *inner limb* along the inner margin of the left psoas muscle to the upper part of the little recess between the psoas muscle and the side of the vertebral body bounding the lumbo-sacral promontory. Here it often presents a sharp bend with the convexity upwards and then passes downwards on the side of the vertebral body, or across the little recess, into the pelvic cavity, where, as the meso-rectum, it is placed about two centimetres from the middle line. The degree of prominence of the upward bend depends upon the state of the development of an up-going fold, which Robinson[7] describes as the suspensory ligament of the meso-sigmoid (outline 14, Fig. 9). When the fold is absent the inner part of the meso-sigmoid may become straightened out. The commonest variation of the meso-sigmoid is the obliteration either by adhesions or by bowel growth of its outer limb (Case 18, Fig. 9), leaving the inner portion Λ-shaped.

In these 40 cases these conditions occurred with the following frequency:—1. Presence of both limbs, 27 cases, or 67 per cent. 2. Complete absence of the outer limb, 11 cases, or 27·5 per cent. 3. Abnormal cases in the presence of a descending meso-colon, two cases.

In the first set of 27 cases there were 13 in which the outer limb of the meso-sigmoid was so short that the attached part of the bowel was practically immobile. So that in 24 cases altogether, or 60 per cent., the outer (first) part of the sigmoid flexure of the colon was firmly fixed. In five cases the inter-sigmoid pouch was very well marked. Case 18 (Fig. 9) shows a kink on the descending colon where it was lodged in a pocket behind the outer part of the psoas muscle at the upper part of the iliac fossa. The bowel was tightly bound in this pocket by the peritoneum. A similar condition existed in two other cases.

THE LARGE INTESTINE.

The vermiform appendix.—The root of the appendix is situated in the average in the right lateral line midway between the planes of C, D, and the anterior superior iliac spines, or about an inch below the intersection of the right lateral line and a line drawn from the right anterior superior iliac spine to the umbilicus. *High level.*—There were four cases in which the *root* of the appendix was situated above the plane of C, D. In two of them it was carried up by a very distended cæcum which would have been obvious on superficial examination, and in the other two cases the ascending colon had very loose peritoneal attachments. In five other cases the *tail* of the appendix passed upwards above the level of C, D. In three of these the appendix was directed upwards in a retro-colic pouch and in the other two cases outside an ascending meso-colon. In one case it was very large and reached up to the under surface of the liver. In nine cases, therefore, or 22·5 per cent., the appendix was situated wholly, or in part, above the level of C, D. *Low level*—In seven cases the root of the appendix was at or below the level of the anterior superior iliac spine; in all of the cases the cæcum was distended and in four of them it was prolapsed within the pelvic cavity. In four cases the root of the appendix was less than four centimetres from the middle line. In three of the cases the cæcum was wholly, and in the other case partly, prolapsed into the pelvic cavity (Case 7, Fig. 10). The alterations in the positions of the appendix as a whole are specially associated with a distended condition of the cæcum and the appendix is specially likely to be found high up when the attachments of the ascending colon are lax. The position of the appendix in relation to the cæcum is chiefly determined by the degree of the absorption of its mesentery by the cæcum or colon. The tenseness of the peritoneum on the iliac fossa no doubt determines the degree of possible prolapse of the cæcum. In a general way the appendix hangs either partly or wholly over the margin of the psoas into the pelvic cavity. The direction of its free end is evidently a matter of small importance as it will vary from time to time. The positions of the vermiform appendix fall into four groups, and in these cases they occurred with the following frequency: 1. Wholly within the pelvic cavity, six cases, or 15 per cent. 2. Free, hanging more or less over the pelvic brim, 16 cases, or 40 per cent. 3. Wholly in the iliac fossa, 14 cases, or 35 per cent. Of these cases seven were quite free, four were partly free but recurved into a retro-colic pouch, and three were wholly behind the peritoneum. 4. Irregular cases, four, or 10 per cent. In three of the irregular cases the appendix passed upwards, as has been described, outside an ascending meso-colon and in the fourth case it was bound to the back of the cæcum without any apparent mesentery. (Fig. 8, Case 39.) If we combine these cases we see that in eight instances, or 20 per cent., the appendix was either recurved into a retro-colic pouch or was firmly fixed behind the peritoneum.

THE CÆCUM.

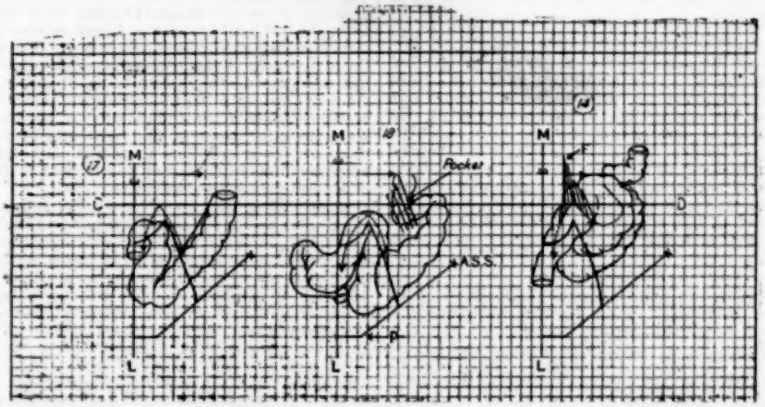
The lowest point of the cæcum was situated, as a rule, in the right lateral line about half an inch below the level of the anterior superior iliac spine. There were seven cases in which the cæcum was wholly, and three cases in which it was partly, prolapsed into the pelvis, or 25 per cent. of the total cases. The chief features in these cases were a distended condition of the cæcum and a generally convoluted condition of the large intestine. In six cases the cæcum was displaced more or less completely above the level of C, D. In these cases, again, distension was a marked feature and frequently a lax state of the attachments of the ascending colon. (See Cases 8 and 12, Fig. 10.) In both these groups of cases the ileo-colic junction was lower down or higher up than usual in conjunction with the cæcum. The cases generally hardly warrant one in saying more than that when the large intestine generally is voluminous and convoluted the cæcum in the presence of distension will be more likely to find room for itself in the pelvis than in the abdomen. In many of the cases of distension of the cæcum when it was not prolapsed, as in Case 12, the beginning of the large intestine presented a twist-like appearance as if the lower part had passed upwards in front of the upper part, so that, it may be, the lowest part of the bowel is not cæcum but colon. The condition was evidently produced by the firm peritoneal attachment of the ascending colon about the level of the iliac crest to which I shall direct your attention in a moment. The bowel above the ileo-colic junction in these cases was firmly fixed, the lower distended part passing

[5] Treves: The Anatomy of the Intestinal Canal and the Peritoneum, London, 1885.

[6] Readers are reminded that the plane C, D, is one taken transversely across the abdomen a quarter of the way from the upper border of the pubes to the supra-sternal notch.

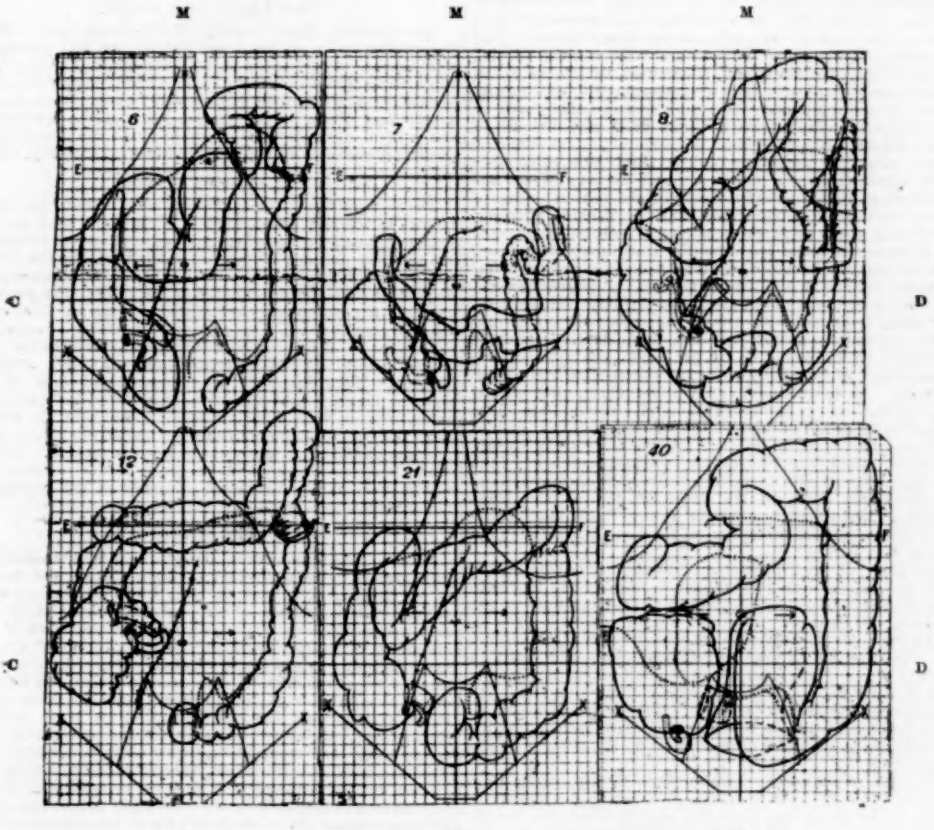
[7] Robinson Byron: The Sigmoid Flexure, &c., Matthew's Medical Quarterly, Louisville, vol. iii., 1896.

FIG. 9.



Shows the three types of the meso-sigmoid described in the text. In the outline from Case 17 the outer limb of the meso-sigmoid is shown by a line and the rest of its attachment in this figure as in the outlines from Cases 18 and 14 is shown by a dotted line. In Case 18 the commonest abnormality of the absence of the outer limb of the meso-sigmoid is shown and in Case 14 the suspensory fold is shown. The scale represents centimetres. C, D, the lower transverse abdominal line. M, L, the middle line.

FIG. 10.



In this figure the large intestine, the vermiform appendix, and the lines of the peritoneal attachments from Cases 6, 7, 8, 12, 21, and 40, are shown on a scale representing centimetres. M, L, the middle line. C, D, the lower, and E, F, the upper, transverse abdominal line in each case. × at the upper part of each figure, with the lines passing downwards from it, represent the infra-sternal notch and the costal arch. × at each side at the bottom of each figure shows the two anterior superior iliac spines with Poupart's ligaments passing inwards from them to the upper border of the os pubis, which is shown across the middle line. The line —|—|— represents the attachment of the mesentery and the dotted line the attachment of the colic peritoneum. The brim of the pelvis is also shown at the lower part of each figure.

upwards anteriorly. The third and fourth types of cæcum of Treves are apparently chiefly and nearly equally represented in these cases.

THE ASCENDING COLON.

The distance of the outer border of the ascending colon from the middle line did not present much variation. In 34 cases, or 85 per cent., it varied from 10 centimetres to 12·5 centimetres from the middle line in the plane of C. D. In nine cases, or 22·5 per cent., the ascending colon about the level of the highest part of the iliac crest had a well-defined kink in it, brought about by its being in these cases strongly bound to the back abdominal wall by its peritoneal attachments. In some cases, as in Case 40 (Fig. 10), these were sufficiently strong to bar effectually the distension of this part of the bowel, although the neighbouring parts were very distended.

THE TRANSVERSE COLON.

There appear to be two chief varieties in the shape of the transverse colon, determined by the presence or absence of a loop downwards from the hepatic flexure. 1. The loop appears to represent a permanence or exaggeration of the primitive bend of the colon at this place. There were 22 cases, or 55 per cent., which presented this loop in varying degrees. In them, as in Case 21 (Fig. 10) the transverse colon at its beginning bends more or less directly downwards for a variable distance (mostly as far as the level of the iliac crest) in front of and to the inner side of the ascending colon, and then, passing upwards again nearer to the middle line, it completes the hepatic loop downwards and passes more or less obliquely across the abdomen to the left side. At the left side, under cover of the ribs, the colon rises for a variable distance upwards in a loop usually directed on an antero-posterior plane. The posterior, or down-going, limb of the loop, when it reaches the basal surface of the spleen, is directed backwards to the posterior abdominal wall, where it turns abruptly downwards as the descending colon. The hepatic loop downwards of the transverse colon is often firmly fixed and difficult to undo; and its down-going limb is frequently found adherent to the adjacent ascending colon. The relatively more stable condition of the bowel contents at the extremity of this down-going loop may perhaps favour the formation of these adhesions. 2. In nine cases, or 22·5 per cent., of which No. 12 (Fig. 10) is an example, there was complete absence of the downward hepatic loop and the transverse colon passed from its hepatic flexure directly across the abdomen along the under surface of the liver to the left, or bulged forwards in a horizontal plane before passing to the left. There were, of course, many cases in which the transverse colon presented shapes intermediate between these looped or straight varieties. In 27 cases, or 67 per cent., the splenic loop upwards had a sagittal direction, of which Case 8 is a good example. In seven cases, or 17·5 per cent., this splenic loop passed in a coronal plane, of which Case 6 is a good example. The down-going limb of the splenic loop is usually of a smaller calibre and more closely sacculated than the rest of the transverse colon. Like the beginning of the ascending colon, the termination of the transverse colon at the posterior part of the basal surface of the spleen is often so firmly fixed that it will not share in general distension of the large intestine. (See Case 6, Fig. 10.)

The cases of high position of the hepatic flexure of the colon and of the transverse colon in the middle line have been already referred to in considering high positions of the stomach, and need not detain us. There were six cases in which the upper border of the transverse colon in the middle line was from 2·5 to nine centimetres above E, F,[8] and 14 cases in which it was from five to 15 centimetres below it, so that it must be considered a very variable point and the average cannot be taken for much. There were, however, 20 cases, or 50 per cent., in which the line E, F, would have hit off sufficiently some part of the lumen of the bowel over the middle line.

Prolapse of the transverse colon (Case 7, Fig. 10, or Case 24, Fig. 11).—There were six cases in which the transverse colon passed across the abdomen wholly below the umbilicus, and four others in which the umbilicus was nearer its upper than its lower border, giving 10, or 25 per cent., of the cases in which the transverse colon crossed the middle line wholly or in greater part below the umbilicus. In five of these cases the attachment of the transverse meso-colon was as high, or in one case (Case 4) higher, than usual; so that in them the low position of the bowel was associated with an elongated, not a prolapsed, mesentery. The average level of the attachment of the transverse meso-colon in the middle line was three centimetres below E, F, and at its commencement at the right, 6·45 centimetres below E, F, or three centimetres above the highest point of the iliac crest. Sometimes the attachment at the right may be low down, whilst that over the middle line is as high as usual; but the low attachment at the right may be sufficient to allow of prolapse of a great part of the transverse colon.

If we define, for convenience' sake, prolapse of the transverse colon and of its mesentery, as when the upper border of the bowel or the attachment of its mesentery in the middle line is five centimetres or more below E, F—that is, about two inches above the highest part of the iliac crest—we have 14 cases of prolapse of the transverse colon and eight cases of prolapse of the transverse meso-colon more or less considerable. Seven cases are common to the two groups. In these cases it will be found that a low position of the liver, and in many cases of the stomach, is especially noticeable. In fact, it seems difficult to lay too much stress on the displacing power of the liver over the parts of the alimentary tract in its neighbourhood. (Fig. 11 shows the position of the parts from Case 24.) In some of the other cases of prolapse of the transverse colon, however, as has been previously noticed, the stomach was at its usual level, the peritoneum between the stomach and the transverse colon having become elongated.

THE DESCENDING COLON.

The inward (and usually firmly-fixed) bend of the descending colon at the lower end of the left kidney was well marked in 12 cases, or 30 per cent., as in Case 7. In three cases the descending colon passed downwards into a pocket beneath the outer border of the psoas muscle and was firmly fixed there by the peritoneum and the bowel took a sharp bend upwards and outwards round the muscle before passing downwards as the sigmoid flexure. (See Fig. 11.)

THE SIGMOID FLEXURE.

The sigmoid flexure passes downwards, more or less firmly bound to the left psoas muscle, in a curve with its convexity outwards, situated about three centimetres internal to the anterior superior iliac spine, until it reaches the brim of the pelvis and becomes possessed of a longer mesentery and acquires a considerable degree of mobility. *For practical purposes a point in the left lateral line at the level of the anterior superior iliac spine may be taken to correspond to some part of the lumen of the sigmoid flexure at the place where it thus, somewhat abruptly, becomes freely moveable.* Treves's[9] description of an omega-shaped loop of the sigmoid flexure within the pelvis represented the majority of cases. There were eight cases, or 20 per cent., in which a large loop of the sigmoid flexure extended out of the pelvis into the umbilical or the right or left iliac region. In these cases the bowel consisted for the most part of a simple loop which was usually distended. A study of the rectum did not enter into this work.

THE LIVER.

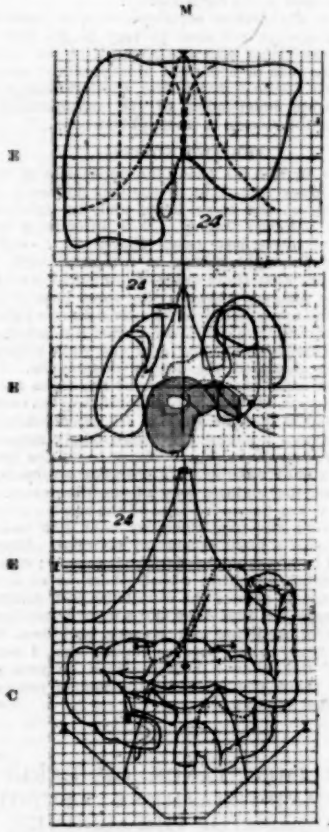
So much has been said in the previous lectures about the solid viscera in the upper part of the abdomen, and the time at our disposal is so limited, that I can only notice a few points. Further details of the surface-marking of the liver may be passed over, especially as the dimensions of this organ can often be determined by the methods of physical examination. In the series of cases examined there was an unusually large number of instances in which the liver was either displaced from intra-thoracic pressure or in which it was enlarged, so that the position of its lower border as shown in Fig. 2, Lecture I., is in all probability one centimetre lower than it would be in the average healthy body. Fig. 3 (Lecture I.) shows that the right costal margin from a level midway between E, F, and the infra-sternal notch to a point four centimetres outside the right lateral line practically represents the lower boundary of the hepatic surfaces of the right kidney and suprarenal capsule. The average distance of the outer border of the inferior vena cava beneath the liver from the middle line was 3·6 centimetres and in very many cases the spigelian lobe of the liver extended

[8] The plane E, F is one transversely across the abdomen through a point half-way from the upper border of the pubes to the supra-sternal notch.

[9] Op. cit.

inwards beneath the vessel so as almost to make a complete tunnel for the vessel in the liver substance. In 30 cases, or 75 per cent., the right lateral line traversed some part of the fundus of the gall-bladder, or was within one centimetre of one of its margins. In seven cases the gall-bladder did not project beyond the lower border of the liver.

FIG. 11.



In this figure the outlines of the viscera from Case 24 on the reduced scale are shown on the same plan as that adopted throughout the lectures and are placed above one another for comparison. In the upper part the liver is shown to extend low down in the abdomen and far across to the left. The middle part shows the pylorus, with the first and second parts of the duodenum displaced downwards and to the left away from the right kidney, which maintains its normal level. In the lower part the large intestine is shown, and it will be seen, on comparing the position in regard to the surface-line E, F, of the lower pole of the right kidney and the upper border of the transverse colon in the middle and lower parts of the figure respectively, that the right kidney in this case derived no support from the large intestine.

THE RIGHT KIDNEY.

One remark may be added to the general description of the surface-marking of the right kidney given in the first lecture—namely, that from the point of intersection of the right lateral line with E, F, the upper pole of the kidney was one and a half inches vertically upwards and its outer border the same distance transversely outwards. The variations in level of the upper pole of the right kidney may be considered both in regard to the surface line E, F, and to the disc between the first and second lumbar vertebræ. In 21 cases, or 52·5 per cent., the upper pole of the kidney was situated between two and 4·5 centimetres above E, F, inclusive. In eight cases it was lower than this, the lowest being on the level of E, F (Case 20). In 11 cases it was more than 4·5 centimetres above E, F, the highest being eight centimetres in Case 10.

The disc.—On the other hand, there were seven cases in which the upper pole of the kidney was not more than one centimetre above the disc—down to one centimetre below it (in Case 20). The average was 3·7 centimetres above the disc. There were 11 cases in which it was 5·5 centimetres or more above the disc up to nine centimetres above (in Case 10). We find, therefore, that the variation in position of the upper pole of the right kidney compared to E, F, was eight centimetres—from the same level to eight centimetres above—and compared with the first lumbar intervertebral disc 10 centimetres—from one centimetre below to nine centimetres above. These figures again confirm the value of the surface line and they show us incidentally how considerable are the variations in level of the kidney compared with the vertebral column.

In inquiring what relation exists between the levels of the liver and the right kidney we may compare the level of the upper border of the liver in the right lateral line with that of the upper pole of the right kidney; and whatever displacing power the liver may possess it is more likely to be seen in the extreme cases, so that we will place side by side those cases in which the liver occupied a low position and those in which it was high up. The average distance vertically upwards from the upper pole of the right kidney to the upper border of the liver in the right lateral line was seven centimetres. The following table records these distances in two cases: A, where the liver was lowest down, and B, where it was highest up.

A.		B.	
Case.	Distance.	Case.	Distance.
15	2·5 centimetres.	4	7·25 centimetres.
7	3 ,,	5	7·5 ,,
2	4 ,,	34	5·5 ,,
27	5 ,,	9	11·5 ,,
16	3 ,,	10	5·5 ,,
30	6·5 ,,	23	10 ,,
22	7 ,,	40	9 ,,
32	7·5 ,,	37	9·25 ,,
11	6·25 ,,	12	8·5 ,,
		31	8 ,,
Average ...	4·97 centimetres.	Average ...	8·2 centimetres.

The difference between these two averages shows that when the liver is displaced upwards it will leave the kidney to some extent; and, on the contrary, that when the liver is lower than usual it moves down to some extent on the surface of the kidney and diminishes the vertical distance between its upper border in the right lateral line and the upper pole of the kidney. This conclusion, however, does not exclude the possibility that the liver in its descent does depress the right kidney in some measure, only in a lesser degree than the liver itself moves downwards. We should not have expected that the kidney would have moved downwards as much as the liver, presuming for the moment that it moves downwards at all. We should expect a certain correspondence between the levels of the different viscera in any given case in the absence of exceptional displacing forces. And if we take those cases in which the right kidney was lowest down we find amongst them a considerable number of cases in which the liver also occupied a low position; and on the other hand, those cases in which the kidney was highest up embrace several in which the liver was also highly situated. Before we make any general statement we should notice the position of the duodenum in relation to the right kidney in the cases referred to. Now the figures of the duodenum show that in all the foregoing cases of low livers except three (and in them to a great extent) the duodenum was almost wholly pushed off the kidney, leaving to that organ a greatly increased hepatic surface. (See, for instance, the outline of the duodenum, &c., from Case 24 on Fig. 11.) On the other hand, the cases of high position of the liver will be seen to be those pre-eminently in which the duodenum passed on to the right kidney near its upper end. The liver, that is to say, has displaced the duodenum very much more

than the kidney. But many of the cases show much more than this. In Case 16 the upper pole of the kidney was 2·6 centimetres higher than its average both in relation to E, F, and the first lumbar intervertebral disc and nearly the whole of its anterior surface was in contact with the liver, which, with its upper border lower than usual, extended far down into the abdominal cavity. In this case clearly the liver had not displaced the kidney; and it is fairly evident that, so long as the enveloping connective tissue of the kidney remains firm, the liver has little displacing influence on the kidney, if any.

THE KIDNEY AND THE ASCENDING COLON.

The hepatic flexure of the colon must be considered amongst those parts which may contribute to the support of the right kidney, as in most cases it presses considerably on the lower segment of the kidney. If the ascending colon contributes materially to the support of the kidney we should expect to find evidence of it in the cases in which the colon is largely or altogether prolapsed away from the kidney. Cases 2, 7, and 15, and, better still, Case 24 (see Fig. 11) and Case 36 are good examples of this condition. In the two last cases in which the colon had wholly retreated from the kidney, the kidney was even, as it happens, at a higher level than usual. In Case 24 the connective tissue passing from the upper pole of the kidney to the diaphragm was carefully dissected, and it contained a strong fibrous cord which passed on to the right crus. The band evidently gave additional strength to the connective tissue around the kidney. A similar condition was remarked in other cases but in none was it so well marked as in Case 24. In this case also the liver was very low down.

The kidney, apparently in the absence of laxity of its enveloping connective tissue, is very much independent of pressure from the liver above or from the stomach below. The right kidney in Case 11 and Case 38 might be spoken of as moveable; but the cases presented no special feature in other respects.

THE PANCREAS.

The alterations in the level of the pancreas, the relative size of its surfaces, the presence or absence of its omental tuberosity, and the changes in the shape and position of its head have been dealt with under the stomach and the duodenum. As the pancreas passes to the left across the face of the left kidney it frequently presents a slight twist, bringing its inferior surface to look downwards and a little to the right.

THE SPLEEN.

The highest point of the spleen is generally situated just inside the left lateral line 1·1 centimetres below the infrasternal notch. In 25 cases, or 62·5 per cent., it varied from the level of the notch to 2·5 centimetres below it. There were five cases lower than this up to 5·5 centimetres below the notch in Case 27; and there were six cases more than one centimetre above the notch, up to 2·5 centimetres in Case 10. Without going into further details we may say that a high position of the spleen seems to be specially associated with a highly-placed stomach, but that a low position of the spleen does not seem specially to accompany a low position of the stomach. The cases do not appear to establish any direct relationship—apart from a general correspondence of visceral levels—between the level of the spleen and the left kidney.

LEFT SUPRARENAL BODY.

One point should be mentioned in connexion with the left suprarenal body. You will see by the illustrations before you that in many cases the level of the left suprarenal body in regard to the left kidney is greatly determined by the position of the pancreas with regard to the kidney, being nearly lifted off the kidney when the pancreas occupies a high position on the kidney, as in Case 17 and Case 31, or being much depressed in level under opposite circumstances, as in Cases 16, 24, 23, and 36. Although the left suprarenal body follows within certain limits the level of the pancreas in regard to the kidney its variation is very much more limited than that of the pancreas.

THE LEFT KIDNEY.

The upper pole of the left kidney projected in the average one centimetre above the upper border of the pancreas, having thus an average possible gastric surface of one centimetre, and it was situated one centimetre higher and 0·5 centimetre further outwards than the corresponding point of the right kidney. The upper segment of the left kidney, however, usually reached a little nearer the middle line than that of the right. Its lower pole, a little above a point midway between E, F, and C, D, in the left lateral line, averaged four centimetres above the umbilicus and 3·3 centimetres above the highest point of the iliac crest. In 60 per cent. of the cases its upper pole was not more than three-quarters of an inch from the average, and, without analysing the variations, it is a little less variable in its level than that of the right kidney.

Apart from the general correspondence of visceral levels the left kidney does not seem to vary in its level in any regular manner either with the stomach or the spleen. In fact, as in the case of the right kidney, whilst its enveloping connective tissue remains firm, the left kidney seems in a great measure independent of the enlargements or displacements of the viscera in its neighbourhood.

THE TWO KIDNEYS.

In 29 cases, or 72·5 per cent., the upper pole of the right kidney was lower than that of the left kidney; in three cases it was at the same level, and, in eight cases, or 20 per cent., it was higher. It is interesting to notice that three of these last cases (Cases 2, 7, and 27) of high level of the right kidney as compared with the left kidney were amongst those cases of low position of the liver in which the distance between the upper pole of the right kidney and the upper border of the liver in the right lateral line was least, and in which the question was asked whether the liver had simply descended over the right kidney or had in a measure displaced the kidney downwards. The fact that in these cases the upper pole of the right kidney was higher than that of the left strengthens the conclusion already arrived at that the liver in its descent does not as a rule produce any material downward displacement of the right kidney. In 10 cases, or 25 per cent., the lower pole of the right kidney was not more than one centimetre higher or lower than the highest point of the iliac crest. In two of the cases it was below the level of the crest.

Mr. President and gentlemen, we have had to our hand in these lectures a great amount of material. Many things of interest I have passed over without remark; many others I have but lightly touched; whilst others, which it has been my endeavour to present to you, have been taken chiefly because it appeared that they had a more direct bearing on the practice of medicine and surgery, and they, in many cases, have been passed over so rapidly that I am deeply conscious of the reliance I have placed on your generous leniency. I thank you again for the honour you have done me and for your kind attention.

ON THE IMPORTANCE OF EARLY DIAGNOSIS AND TREATMENT IN SURGICAL DISEASES OF THE ABDOMEN.

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THE advances which have been made of recent years in the surgery of the abdomen are unquestionable, and it is beyond controversy that many lives are now saved which would formerly have been sacrificed by the lack of operative interference. The general practitioner is in most cases first brought into contact with patients in the earlier stages of their troubles and it depends upon his accurate appreciation of the earlier symptoms, which are often somewhat vague and indefinite, and upon his prompt action whether a successful issue is attained. The insidious and gradual manner in which abdominal symptoms often supervene is calculated to put him off his guard, whilst the frequency of simple functional disorders of digestion with no organic lesion to account for them is likely to lead him to postpone a thorough investigation until a more serious state of things has arisen. It is seldom that surgeons are called in too early, whilst unfortunately we are often summoned too late.

Putting gynæcological questions aside, the chief conditions for which the general surgeon is called upon to open the abdomen may be conveniently divided into two groups, according to whether they arise as the outcome of inflammatory or neoplastic phenomena, and I think it would be well

for us to take a few illustrations of each of these groups and compare the condition of affairs in the early and late stages respectively. Turning first to the *inflammatory group* we have, of course, two main divisions to discuss, according to whether the inflammation involves the whole of the peritoneal cavity or is localised. As illustrations of diffuse mischief let us discuss perforation of a gastric ulcer, perforation or rupture of the intestine, and perforative appendicitis.

1. *Perforation of a gastric ulcer* is by no means uncommon. It involves most frequently the anterior wall, and the contents of the stomach pass into the peritoneal cavity, slowly or rapidly, according to circumstances. This predisposition of the anterior wall for perforation is probably due to its greater mobility and to the fact that it is not covered in by other organs to which it can become adherent and thus prevent extravasation. The patient has usually complained of a train of symptoms which point to the stomach as the seat of the mischief. There have been pain after food, repeated vomiting usually coming on soon after a meal, and hæmatemesis, associated with loss of flesh, general malnutrition, and anæmia. It must be admitted, however, that a certain percentage of cases are at first almost devoid of symptoms. The actual perforation may be brought about by traumatism or during an act of vomiting, or, indeed, may be due to some slight abdominal strain of which no notice is taken. The patient complains of acute pain in the epigastrium, followed rapidly by symptoms of shock. The temperature falls, the pulse is weak and rapid, and the face is ashy pale and covered with a cold clammy sweat, which may also extend to the whole surface of the body. The phenomena of acute peritonitis soon follow, and unless surgical assistance is at hand death rapidly ensues. If anything is to be done it is obvious that it must be done quickly, for the longer one leaves the case the more extensive is the diffusion of the septic material and the less the chance of being able to effectively cleanse the peritoneal cavity. It is worth noting in this connexion that the stomach contents are not usually so virulent as those of the intestine, so that operation undertaken within a few hours of the onset of symptoms has a much greater likelihood of being successful. Furthermore, the length of time taken by the operation is less when done early, as the necessity for wholesale washing out of the general peritoneal cavity does not exist, whereas in the later stages it is almost essential to make an additional opening just above the pubes in order to drain and disinfect the lower half of the abdomen.

2. *Rupture of the intestine* is another instance in which time is an all-important element in the question of prognosis after operation. The contents of the intestine, unlike those of the stomach, are excessively virulent, and hence the conflagration set up spreads with the greatest rapidity, so that the time in which a successful operation can be reasonably expected is shorter than in the former. The site of election of intestinal rupture is generally found to lie in the upper part of the jejunum or in the lower portion of the ileum; in the latter the rupture is generally caused by traumatism, such as a kick or a blow in the abdomen during a game of football. The soft and pultaceous material oozes into the general peritoneal cavity, and unless laparotomy is had recourse to within a very few hours death is certain to result.

The diagnosis of these cases is often exceedingly difficult in the early stages, and yet an accurate appreciation of the nature of the injury and of the initial symptoms would irresistibly cause one to draw the conclusion that some serious internal lesion had occurred. For instance, there is the story of a severe blow followed by fainting and general collapse and succeeded by excruciating abdominal pain. Vomiting, increased resistance of the abdominal wall, and a development of general tympanites indicate only too surely the preliminary phenomena of acute peritonitis and if further time is wasted the surgeon's opportunity for a successful interference will be lost. Unfortunately, in this class of abdominal trouble the symptoms follow each other with such rapidity that at present our record of success is nothing to boast of. As time goes on, it may be hoped that increased familiarity with the symptoms will lead to earlier operations and better results.

3. *Perforation of the vermiform appendix* is, we now know, one of the most frequent causes of acute diffuse peritonitis and, indeed, a great majority of those fatal cases which the medical practitioner used to place in the registrar's records as acute peritonitis without any further comment took their origin from this cause. The chief cause of acute perforation of the appendix is the presence within it of some irritating material which usually takes the form of fæcal concretions, containing the bacillus coli communis in large masses. The pressure on the vascular supply to the mucous membrane and other coats results in loss of vitality, bacterial invasion, softening, and perforation. These several processes follow one another with great rapidity, so much so as to earn the name "fulminating" for the attack of inflammation which ensues. It goes without saying that the earlier this condition is realised and properly treated the better for the individual concerned.

The early symptoms are very similar to those of perforative peritonitis elsewhere—viz., shock, pain, and rapidly increasing distension and tenderness of the abdomen. The pain, however, though often at first referred to the umbilical region, soon becomes most marked in the right iliac fossa, and perhaps a point of maximum tenderness may be found at or near McBurney's spot. Vomiting is almost always present and quickly becomes fæcal. The temperature is not necessarily high, since the patient soon becomes poisoned by the toxic products developed in the peritoneal cavity and then collapse ensues. It is also important to note that no definite tumour is to be expected in these fulminating cases, but there is increased resistance to the hand placed on the abdomen, and this is most marked over the right iliac fossa. The association of these phenomena ought to suffice for the establishment of a correct diagnosis and to be quite sufficient to justify the practitioner in insisting on a prompt operation.

Turning now to the more localised forms of inflammatory trouble the same conclusion is constantly forced upon us—viz, that early operative interference is exceedingly desirable, even if not absolutely essential. Take, for example, the less acute types of appendicitis which are likely to terminate in an acute localised abscess. It is admitted on all hands that the primary cause in these cases is an invasion of the walls of the appendix by the bacillus coli communis with or apart from the streptococcus pyogenes. The inflammation thereby lighted up is by no means of such a severe type and therefore there is sufficient time for nature to organise a barrier of adhesions whereby the spread of the mischief may be checked. Should suppuration now take place around the appendix, an abscess forms, the walls of which are composed of coils of intestine agglutinated together by adhesions of variable strength. In this way contamination of the general peritoneal cavity is prevented, providing that the tension within the abscess cavity does not exceed the powers of resistance in the adhesions. Left to itself the abscess may behave in various ways. In the more favourable cases it may burst into the bowel, and indeed there are some authorities who maintain that all the more severe cases which end in recovery take this course; in others the pus may burrow towards the anterior abdominal wall, and point as a subcutaneous abscess; in others a retro-peritoneal abscess is developed, followed by pointing in the loin. In the more serious forms the leakage takes place into the general peritoneal cavity, and if this condition is not soon recognised death from diffuse septic peritonitis is almost certain to ensue. I have in my mind's eye a case of a man, about 30 years of age, to whom I was called in consultation nearly three years ago. He had what I considered all the typical symptoms of acute localised appendicitis. A tense resisting swelling was present in the right iliolumbar region, whilst the whole abdomen was distended with flatus and tender. The temperature was above 100° F., the pulse was rapid, and the countenance was expressive of anxiety. He was lying on his back with his legs drawn up and it was obvious that some serious focal point of inflammation existed in the abdomen. The medical attendant (my senior), however, after listening to the opinion given, expressed a firm belief in the efficacy of time and delay. He advised the administration of large doses of opium and that the question of abdominal section should remain over until the following day. When we met over the patient 24 hours after, there were undoubtedly some more favourable signs—that is to say, less pain and less distension. This was doubtless due to the opium, but the medical attendant thought, on the other hand, that it was the result of a general improvement in the severity of the inflammation. It was decided to postpone any active interference for another 24 hours in spite of my having again urged operation without delay. At midnight I was summoned in great haste and on reaching the patient,

who was some five miles distant, I found that matters had gone steadily from bad to worse. The abdominal distension was much greater and the symptoms of general septic peritonitis were aggravated all round. Under difficulties which would not have been present in the daytime I proceeded to perform a laparotomy, and as it appeared likely that an extravasation of septic pus had occurred into the general peritoneal cavity I thought it wise to open the abdomen a little nearer the median line than usual. On dividing the abdominal wall and the parietal peritoneum a quantity of stinking pus escaped and on introducing my hand I soon detected the appendix in its usual situation close to the cæcum and free from adhesions. I placed a ligature upon it without difficulty close to the gut and removed the portion below. The appendix was found to be perforated at a small spot about one inch from the apex and it contained a hard fæcal concretion. The abdominal cavity was next washed out with a hot saline solution and the coils of intestine in the immediate neighbourhood of the appendix were thoroughly cleansed. Twelve-inch strips of cyanide gauze about two inches in width wrung out of hot 1 in 40 carbolic solution were placed between and amongst the coils in the region principally affected, and the ends were left projecting some two inches outside the abdomen. The upper and lower angles of the incision were sutured and these so-called lamp-wick drains were left undisturbed for 48 hours. The condition of the patient was decidedly perilous, but I am glad to say that his constitutional powers proved equal to the occasion and he made a rapid and satisfactory recovery in the course of three or four weeks. Had the operation been performed three days before I firmly believe that we should have found the general peritoneal membrane unaffected and merely a localised abscess around the appendix.

This, however, is not the only danger which may arise from delay in operating in cases of suppurative appendicitis. The veins in the meso-appendix may become thrombosed, and septic emboli be detached therefrom and carried to the liver, giving rise to portal-vein-pyæmia, or diffuse pylephlebitis, as it is termed. Moreover, a general toxæmia may result if even a localised abscess is left too long untreated, and then when finally an operation has to be undertaken to deal with it a fatal issue supervenes from sheer exhaustion. Finally, it is possible that the whole process may become quiescent and a focus of inspissated pus be left in the neighbourhood of the appendix. No harm occurs unless some sudden strain or blow causes rupture of adhesions and dissemination of the pus into the general peritoneal cavity. I have lately met with a case where a gentleman who had suffered from appendicitis some years previously was stooping to pick up his boy's fishing-rod which had fallen into the sea. The timber on which he was standing was wet, and he slipped, and the effort to save himself gave him a slight wrench of the abdomen. He became sick and faint, and after resting a few minutes was conveyed home in great agony and died from acute peritonitis within two days. At the post-mortem examination it was demonstrated that a focus such as we have been just describing had existed for a long time in the neighbourhood of the appendix, which latter was adherent along its whole length.

From a consideration of cases such as these, which, be it noted, are by no means uncommon in surgical practice, there is no question that the surgeon is inclined to recommend operative treatment at a much earlier date and much more frequently than our medical *confrères* are willing to agree to. Let it be granted that there is a class of mild cases of appendicitis which will get well with more or less rapidity if only the patient is kept quiet in bed, his diet restricted to fluids, and a certain amount of opium administered. But even in such, where the proportion of recoveries is claimed to be about 90 per cent., physicians have to admit that recurrence is likely to take place in at least 30 per cent. of the cases—and remember, these recurrent attacks need not be of the same mild type as the first, and as a result of any of them the patient may rapidly pass into a condition of grave risk. Again, we must not forget that although an attack may commence with apparently mild symptoms one never knows when more acute phenomena may supervene and place the unfortunate patient beyond the help of surgery. Under these circumstances one is forcibly driven to the opinion that surgical interference ought to be undertaken much more frequently and much earlier than it is, and although we may not be willing to agree with the practice followed by some American surgeons—viz., to operate immediately the condition is diagnosed—yet one would be glad to see more active and energetic methods of treatment introduced in this country. When undertaken early the bacterial invasion has rarely spread very far, and with the ordinary precautions that we are in the habit of adopting there is no reason why an operation should not arrest further dissemination.

Turning now to the *neoplasms of the abdominal viscera*, the different possibilities that present themselves according to whether the disease is recognised early or late must be traced out.

Cancer of the stomach manifests itself in a number of different types. When the cardiac orifice is involved the chief symptoms are inability to complete the act of deglutition and the regurgitation of food at a variable time after its ingestion according to the amount of dilatation of the œsophagus which has taken place; as a general rule, the food is retained for a few minutes or even perhaps half an hour, but its retention is accompanied by pain which the patient usually refers to the middle of the back about the eighth dorsal vertebra. Unfortunately, there is no possible means of dealing radically with this affection and yet there is an important point to note in connexion with our subject—viz., that the only operation which can in any way alleviate the symptoms—that is, gastrostomy—must not be left till too late. Undertaken early it gives a very appreciable amount of relief to the patient, and I have even known of cases where the patient put on weight afterwards and lived for 12 months; in some the power of normal deglutition returned in measure and thus the patient was able to take in nutriment in two different directions. Generally, however, these patients are sent to us for operation only when all power of deglutition has disappeared, or at any rate when they can only with difficulty swallow fluids; they are in a miserably emaciated condition, and the operation of gastrostomy is a severe tax to their powers, and hence the death-rate is high and the amount of relief given very slight.

There are two chief ways in which cancer attacks the body of the stomach—viz., it is either a localised nodular growth or a generalised infiltration, the latter being the more common. In the former type the growth, which is a columnar carcinoma, constitutes a hard tumour of slow development, which unfortunately gives rise to but few symptoms. The organ is not enlarged; there is no stenosis of the orifices; vomiting is slight and has but little relation to food; and hæmatemesis is often absent. The patient complains of pain somewhere in the region of the stomach, the site varying with the position of the ulcer, and a lump may be felt if the growth is on the anterior wall. Steady loss of weight will be an important symptom. In the diffuse type of cancer of the stomach the organ becomes much contracted, and in one case recently reported by Dr. Bryant in the *Clinical Journal* the organ, which normally can hold three pints of liquid, could only retain two ounces. The walls of the organ are thick and hard, constituting a solid mass which can frequently be detected by palpation in the epigastric and left hypochondriac regions. Vomiting is an invariable sequence of this affection and usually follows the ingestion of food within half an hour; there is little or no hæmatemesis since the mucous membrane is intact and free from ulceration.

In either of these conditions lymphatic troubles soon follow, the glands lying above and below in the lesser and greater omenta first becoming involved; subsequently those lying in the portal fissure become also affected and these may lead to ascites or jaundice from pressure on the portal vein or bile-duct. Locally the growth may contract adhesions to surrounding viscera or may extend into the substance of the great omentum, which may develop into an enormous mass of cancerous disease and perhaps undergo colloid degeneration. It is obvious that early diagnosis makes all the difference in the world in the result of such cases, and that failing the establishment of this diagnosis the patient must inevitably and quickly succumb. The very fact that a diagnosis is a matter of difficulty emphasises the statement that should a patient present himself with a story of persistent vomiting which medicines are unable to control, together with fixed pain in the region of the stomach and perhaps a feeling of resistance in the epigastrium, even though no actual tumour can be felt, and still more if there be some history of preceding hæmatemesis—then under these circumstances it would be perfectly justifiable to propose and to execute an exploratory laparotomy with a view of settling the question

as to the existence or not of malignant disease, and then it may be possible to effect a cure. And here let me state very emphatically that whilst early operations on the stomach hold out considerable prospects of cure, if the disease is allowed to invade the whole organ they become matters of the greatest gravity and in many cases the abdomen has to be closed and the unfortunate patient relegated to his unhappy fate without hope of relief or cure. Let me lay before you a few facts as to the present position of the operative treatment of malignant disease of the stomach which I have gathered from the second edition of Mr. H. T. Butlin's valuable work on "The Operative Surgery of Malignant Disease."

Operations for excision of cancer of the stomach are of comparatively recent introduction, but already a considerable mass of information is obtainable. Excision of the whole stomach or of the greater portion of it has been undertaken in 14 cases with five deaths and in all of the fatal cases the cause was shock and not sepsis. Partial gastrectomy for malignant disease is a very unusual proceeding, as so few cases are met with in which it can be usefully practised; there cannot be the slightest doubt that were it adopted in suitable early cases a large measure of immediate success would accompany it.

As to the question of final cure after these proceedings the following facts may be mentioned. Porges removed nearly all the stomach for cancer and the patient was alive and well six years afterwards. In Schlatter's well-known case of total gastrectomy the woman died from secondary cancerous deposits one year and two months later, but there had been no local recurrence. Schuchardt's patient had all the stomach removed except a strip near the cardiac extremity; she died from cancerous pleurisy three years later, whilst the portion of stomach left to her had dilated sufficiently to allow of the introduction of 500 cubic centimetres of food. Most of the other cases are too recent to be of any statistical value. Ricord has lately recorded a case[1] in which he removed the whole stomach, the first part of the duodenum, and a considerable portion of the pancreas which was infiltrated by the cancerous growth, and the patient was alive and well 11 months later.

Cancer of the pylorus usually gives rise to a much more definite and characteristic group of symptoms. It is a hard cancer of the scirrhous type and therefore develops slowly, and thus allows a margin of time in which curative operations may possibly be undertaken with success. The growth limits itself in a curious fashion towards the duodenum, but spreads freely into the adjacent portion of the stomach. It tends to involve the whole of the pyloric orifice, and thus stenosis is usually produced before the growth has lasted very long. Dyspepsia of a gastric type—i.e., pain after food, especially if it be of an indigestible character—and occasional attacks of vomiting will be the earliest indications of mischief; but before long the symptoms of gastric dilatation follow, and every two or three days the patient will throw up a large quantity of semi-digested food mixed with mucus and undergoing fermentation, as indicated by the existence on the top of a frothy scum. Any lump that forms is to be detected on the right of the median line, and partly owing to the weight of the mass, partly to the dilatation of the stomach, this will be felt below the normal position of the pylorus—i.e., not far from the umbilicus. In the earlier stages this growth is moveable and free from adhesions, whilst lymphatic complications are not very rapid in their development. It is thus obvious that granted a diagnosis before fixation of the neoplasm by adhesions or before such lymphatic developments, there is a *prima facie* probability that removal may be successfully accomplished. The operation of pylorectomy was, however, at one time looked upon as such a dangerous proceeding as to almost put it out of the pale of justifiable operations; thus Mr. Barker states that a mortality of 76·5 per cent. was connected with it during the eight years between 1883 and 1890. Fortunately, our methods have so improved of late that the same authority states that the death-rate during the years 1890 to 1898 had been reduced to 28·6 per cent., whilst individual operators could claim even better results from their work. Thus Kronlein lost only two out of his last 20 cases, and Mikulicz saved nine out of his last 10. As to the ultimate results gained by pylorectomy Haberkant has collected 51 cases where the course and after-history are known: 26 of the patients died within from one to six years, 23 dying within two years; 21 were alive and well at periods varying from one to eight years after the operation; four were alive and well beyond the three-year limit; and four were alive with recurrence. Kronlein and Mikulicz have operated on 35 cases in all; six were fatal directly as the result of the operation; 16 occurred after operation; two patients died within a year, but not from the cancerous disease; two were well within from one year to two years of the operation; and two only were alive after four years. From these figures it is obvious that although up to the present comparatively few lives have been finally saved from the clutches of this dire disease, that is mainly to be attributed to the want of an early diagnosis and consequent treatment. Even if the affection is finally fatal the patient is much more comfortable after operation than before, and all the accounts go to prove that local recurrence is infrequent.

Should pylorectomy be impracticable owing to the extent of the disease, all that the surgeon can do for his patient is to perform a gastro-enterostomy which has a death-rate of at least 10 per cent. attached to it, and which at the best can only give relief for a few weeks or months. It is obvious how very important the question of early diagnosis becomes in such a disease as this, and that in cases of doubt there should be no hesitation in the general practitioner suggesting expert advice and the performance of an exploratory operation.

Passing now to the subject of *intestinal cancer* one has in the first case to note the extremely insidious character of its onset, although the affection itself is to be looked on as less malignant than cancer in other parts of the body. Frequently there is very little indication of its presence until stenosis of the intestine has progressed to such an extent as to lead to obstructive phenomena, whilst the appearance of a lump is often delayed to a period when the disease has gained such a foothold in the patient as to render all attempts to extirpate it negatory. Progressive wasting and recurrent attacks of paroxysmal pain with irregularity of the bowels (usually consisting of periods of constipation followed by diarrhœa) are the only early phenomena which suggest its presence. It must also be noted that the large gut is much more frequently attacked by this affection than is the small gut.

As to the results of operative interference statistics do not give very favourable figures. I shall only take note of cases where excision of the growth could be at once followed by end-to-end union—that is to say, one has to exclude those operations done for this disease when obstruction existed and a temporary or permanent opening had to be established. The immediate death-rate connected with this operation is about 35 per cent. Lardennois, who has laboriously investigated this matter, gives the following figures:—

—	Cases.	Deaths.	Mortality.
Removal of the cæcum and ascending colon	79	28	35·4 per cent.
Removal of the transverse colon .	66	25	37·8 ,,
Removal of the sigmoid flexure ...	36	12	33·3 ,,

The question of actual cure must at present be admitted to be in an uncertain condition, since the better and safer methods of enterectomy have only been recently introduced. Von Bramann relates 14 cases: six patients died directly as the result of the operation; there was one recurrence; three were alive less than three years afterwards, and four were alive more than three years afterwards. Czerny has performed 18 such operations with nine deaths and three recurrences. Three patients were alive less than three years, and three were alive more than three years after operation. The conclusion that is irresistibly drawn from these figures is that in spite of the extensive nature of the lesion in many of the cases there has been a very gratifying degree of success, although one cannot but admit that the mortality has been high, whilst one is also justified in believing that had many of these operations been performed at an earlier date the results would have been much more satisfactory. Three chief causes of death have been alluded to—viz., shock, sepsis, and recurrence. Early operation, by lessening the magnitude of the proceeding and consequently

[1] Gazette des Hôpitaux, March 22nd, 1900.

by diminishing the time occupied, would lessen shock. The better condition of the patient's general health and nutritive state would increase his germicidal powers and minimise the risks of sepsis which would then mainly depend on errors in the operative technique which should be easily avoidable. Lastly, it goes without saying that the earlier the operation, the less the likelihood of recurrence.

Space does not permit me to discuss many other surgical affections of the abdomen in which the same conclusions might be drawn as to the serious consequences which are likely to ensue from a *laissez-faire* course of action until the diagnosis is made obvious by complications which render curative treatment impracticable.

In emphasising the importance of making an early diagnosis it may be useful to pass in review the salient features and the chief signs and symptoms which should be looked for as soon as the practitioner is called to the case. In the first place, it is usually possible to get some general idea as to the particular region affected or as to the probable nature of the case from a consideration of the more prominent symptoms present and the method of onset of the attack. Thus an old-standing history of repeated vomiting, perhaps associated with epigastric pain, suggests the stomach as the site of the lesion. An attack which commences suddenly with abdominal pain and vomiting suggests an acute inflammatory lesion, or possibly perforation or strangulation; then, if the temperature is high, the former of these lesions is the more likely, whilst a normal or subnormal temperature is indicative of the latter. Then, too, the localisation of the pain may be suggestive—e.g., pain in the right iliac fossa leads one to suspect appendicitis, although in this affection it is often referred in the first place to the umbilicus. The greatest difficulty will always be experienced in those cases where the symptoms are from the first vague and indefinite and the onset is very gradual. The age and sex of the patient will also have an influential bearing in forming an opinion. Thus, malignant disease of the abdominal viscera is unusual before the age of 40 years, although sarcoma of the kidney, and occasionally of the intestine, is seen in the first decade of life. Inflammatory diseases are more common before the age of 40 years. In children acute abdominal mischief is probably due to intussusception or appendicitis, whilst more chronic affections suggest tuberculous peritonitis or a similar disease of the mesenteric glands. It is also useful to note that appendicitis is more frequent in men than in women in the proportion of about four to one; gastric ulcer is infinitely more prevalent in the female sex, whilst ovarian and tube lesions should not be overlooked. The previous medical history of the patient may throw light upon the case. Thus one or more attacks of prolonged vomiting after food together with hæmatemesis would suggest some of the sequelæ of gastric ulcer, such as stenosis of the pylorus. An earlier attack of dysentery may be the cause of stricture of the rectum or sigmoid colon. Prolonged diarrhœa and abdominal pain in a patient with a tuberculous history would suggest the possible existence at an earlier date of tuberculous ulceration of the bowel, and this may result in stricture, usually of the small intestine. A former history of severe colicky pain in the right hypochondrium, followed by jaundice or at least by an icteric tinge about the conjunctivæ, would lead one to suspect some of the sequelæ or complications which arise from gall-stones. Previous attacks of pain in the right iliac fossa together with vomiting would make one suspicious of some chronic trouble in connexion with the vermiform appendix, whilst if the pain were lower down in the pelvis, and especially if associated with backache and aggravated at the menstrual periods, ovarian or tube disease would be thought of. Persistent loss of weight is, of course, an important and suggestive phenomenon, frequently pointing to malignant disease, but one must not allow this symptom undue importance, as it may be due to simple malnutrition from functional causes connected with chronic dyspepsia. It is also well to find out the occupation of the individual and to inquire into his habits of life, as some useful information may be thereby obtained. It is only necessary to mention the association of intestinal colic with lead-poisoning in plumbers and house-painters to illustrate the force of this remark, whilst an alcoholic history may explain a hæmatemesis which would otherwise suggest ulceration of the stomach.

We must not, however, allow ourselves to be unduly biased by these symptoms or carried away by these considerations, important though they may be, without bringing forward either in support or opposition every fact that can be elicited by physical examination of the patient and of the abdomen. In the first place, one may learn a good deal from a careful notice of the general aspect and facies of the individual. A placid, calm expression of the face usually indicates that there is no mischief of an acute, active, or urgent character present in the abdomen, for when such mischief exists there is a pained, drawn, and anxious look, the face being pinched and pallid, whilst in conditions of acute obstruction or strangulation the forehead may be covered with a cold, clammy sweat. Again, a hectic flush on the cheeks would suggest some chronic toxæmic condition, and granting that the mischief is limited to the abdomen one would naturally think of tuberculous peritonitis. A yellowish tinge of the face would in like manner lead one to suspect the liver as the cause of the trouble. In the next place we should notice the decubitus, as to whether or not the patient always lies on his back, and if so whether the legs are drawn up as in peritonitis; possibly in appendicitis only the right leg would be thus flexed.

Having obtained all the evidence possible by such observations as these we come to the actual examination of the abdomen, and in order that it may be thorough and exhaustive (as it should be even in apparently trivial cases) it is essential that the whole abdomen should be bared and exposed to view, whilst when one commences to palpate the knees should be drawn up so as to relax the abdominal muscles. To commence with, the practitioner should notice the general contour and condition, whether there is any general or localised distension or flaccidity, and if the former where it is located. Central distension frequently indicates an ovarian tumour, a distended bladder, or obstruction to the small intestine, whilst bulging of the flanks is significant of a dilated colon or of dropsy. The appearance of an abnormal projection of a limited portion of the abdominal wall suggestive of the presence of a tumour can sometimes be observed. A swelling located in the epigastric and left hypochondriac regions suggests a tumour of the stomach; a pyloric tumour usually presents a little to the right of the umbilicus and just above it; a distended gall-bladder can often be seen during the movements of respiration below the costal margin in the right hypochondrium; whilst a projection in the right iliac and lumbar regions may possibly be due to an abscess round the appendix or to malignant disease of the cæcum; an obvious enlargement in the left lumbar region may be due to either spleen or kidney. Dilated coils of intestine can sometimes be seen, and when this is the case it is not unusual to be able to see them traversed by a wave of peristalsis; such a condition is indicative of chronic obstruction due to some narrowing of the intestine, either simple or malignant. Then again we must note the character of the respiratory movements and how far the abdomen participates in the process. In almost all acute peritoneal lesions thoracic respiration is alone utilised. Where there is an obvious tumour the influence of the respiratory act upon it must also be noted, since it is only in those which are more or less directly connected with the diaphragm that downward displacement occurs during inspiration. Of course, any localised area of redness, particularly if this spot is œdematous, would suggest that an abscess is travelling towards the surface.

Having learnt all that is possible by simple inspection we should next proceed to palpate the abdomen, and in doing so we should endeavour to get the abdominal muscles relaxed as much as possible. To this end not only should the patient's knees be raised, but his mouth should be open and he should be told to breathe in and out quietly and regularly. The examiner's hands should be warm and care should be taken not to suddenly drive one's fingers into the patient's abdomen, but the flat of each hand should be gently placed on it and the pressure gradually increased. The tension of the abdominal parietes should first be observed and, supposing there is a sense of resistance, whether it is general or local. Next it should be ascertained whether marked tenderness exists, and if so an effort should be made to localise the point where it is greatest, whether in the epigastrium, as in cases of perforated gastric ulcer, or in the iliac fossa, as in appendicitis, or elsewhere. In chronic cases careful examination for a tumour should be made and if one should be found it would be important to ascertain by this means whether it is moveable or fixed; whether the respiratory movements influence its position; whether it is solid or fluid; whether it is smooth in outline or nodulated; and if possible to determine with what

viscus it is connected. To this end a bimanual examination is sometimes useful, the second hand or some part of it being placed either behind the loin, as in suspected renal tumours, or in the rectum or vagina if there is any suspicion of its being connected with the pelvic viscera. Percussion is another valuable agent in the examination of abdominal swellings, although it must be admitted that the mobility of the small intestine and its ready displacement may lead to an incorrect interpretation of facts. In particular it may be mentioned here that tumours of the kidney are always dull in the flanks, but even when of large size a line of resonance may be detected running longitudinally over them in front, due to the presence of the colon. Splenic enlargements or a dilated gall-bladder, on the other hand, will follow the anterior abdominal wall, and it is rare for intestine to be found in front of them.

In addition to this routine method of examination special and confirmatory evidence may be derived in investigating the lesions of particular regions. Thus in affections of the stomach it is often desirable to ascertain the character of the gastric secretion, the capacity of the viscus, and whether or not its contents are passed onwards in the usual time. To investigate the first of these it is necessary to give the patient a test meal and then remove the contents of the stomach for chemical analysis about an hour afterwards. The meal consists of a cup of weak tea without much milk and a thin slice of toast administered the first thing in the morning on presumably an empty stomach. The chief point required in the analysis is the amount and character of the acid secreted, since in carcinoma the percentage of hydrochloric acid is usually very much diminished, whereas in other conditions it may be increased. In the same way by the introduction of a tube the capacity of the organ can be ascertained.

Accessory means of diagnosis at our command in connexion with affections of the intestines are unfortunately very limited, and I may mention here the fact that examination under an anæsthetic, though often utilised, is not of much real value, since in the early stages a tumour or other affection is usually so small that it cannot possibly be detected even in a thin person, whilst the addition of a thick layer of subcutaneous fat still further adds to the difficulties of the investigation.

In affections of the lower bowel, or where disease is suspected, it is always desirable to make a careful rectal examination, whilst in females an examination per vaginam may also be employed. Thus in appendicitis a tender spot may sometimes be found high up in the bowel on the right side, especially in those cases where the appendix is directed downwards and backwards, under which circumstances an abscess connected with it tends to travel towards the pelvis; in many such cases, although the abdomen may be generally distended, there is no lump to be felt in the iliac fossa and no tenderness. Again, a rectal examination must form part of the routine method of investigating any and every case of intestinal obstruction. Surgeons have been constantly called in to cases of this nature where, had this precaution been previously taken, the necessity for their being summoned would not have arisen. Large masses of fæcal accumulation have been the sole cause of the trouble, and the administration of a few enemata and the removal of scybala if need be, by a suitable spoon, will clear up the case. I recollect being called down into the country to a case of intractable anal fistula which had been slit up in the usual manner nearly two months previously. Iron had been freely administered as a tonic, but the wound would not heal. On inquiring as to the state of the bowels I was informed that there was a constant diarrhœa present. On exploring the rectum with the finger I found a large hard fæcal mass practically occupying the pelvic cavity and this, acting as a constant irritant, had partly converted the mucous membrane of the rectum into granulation tissue which bled readily. The removal of this large foreign body was followed in the course of a short time by the healing of the wound. Once more it must not be forgotten than in children a rectal examination in cases of obstruction may reveal the existence of an intussusception, although we may hope that a diagnosis would be made long before the apex of the intussusception had reached the rectum.

Assistance in diagnosis is often derived from the passage of a catheter or sound into the bladder, and the use of the former has in many cases resulted in the rapid disappearance of what had previously been supposed to be an abdominal tumour.

The radiographic process unfortunately does not help us much in the investigation of abdominal cases. It may be useful to locate a foreign body which has been swallowed, or a bullet, and in some very thin persons a stone in the kidney has been detected, or a Murphy's button in the intestine. The resulting photographs are generally so indistinct as to be of no practical value, but it is quite possible that this process may be improved upon.

Having thus exhausted all possible means of investigating the case, one may hope that some tolerably clear idea as to the nature of the lesion has been arrived at, even if an actual diagnosis cannot be given. Of course, we cannot close our eyes to the fact that functional troubles occasionally arise with a group of symptoms so like those produced by organic disease that it is almost impossible to differentiate between the two apart from an exploratory incision. Thus in the aged the functional activity of the various abdominal viscera is often much diminished, giving rise to phenomena very like those of actual disease—e.g., a loss of tone of the intestinal wall may cause marked constipation, flatulence, and even obstruction, or a similar condition of the stomach may lead to dilatation of that viscus suggestive of pyloric stenosis. It is abundantly clear that the symptoms of organic disease and functional trouble overlap, and therefore in a certain number of abdominal cases the diagnosis will always remain indefinite. In such circumstances the patient should be told the facts, the advantages and risks of an exploratory operation should be pointed out, and the decision should be left to him or her, or in the case of the young to those in responsible charge.

Harley-street, W.

POST-PARTUM HÆMORRHAGE.[1]

BY E. STANMORE BISHOP, F.R.C.S. ENG.

I WELCOME this opportunity of bringing before you a subject which is interesting and important to all medical men—doubly important, I conceive, because when a case illustrating it occurs to them they find themselves suddenly, almost without warning, in the presence of a crisis in their lives. Immediately they must decide upon their course of action—there is but little time for careful consideration, seldom time enough for consultation with others, never for recourse to books. There and then they must act; and upon their action depends the life of one person certainly, probably of two, and the happiness or misery of the family whose whole reliance, whose whole trust rests on their shoulders. When this crisis arrives there is no place for discussion. Each man must go into the fight with a clear cut idea in his own mind of what he has to do, why he has to do it, and how it should be done, and upon the truth or otherwise of his idea will depend the result. Is it not well, therefore, that now, whilst we can coolly and calmly do it, we should examine our ideas and make certain that they are correct, so that when that crisis arrives, as it is almost certain to do with each one of us, there may be no doubt, no hesitancy, no fear in our action?

The necessity for some definite utterance on this subject has been emphasised by the debate which took place last year at the meeting of the British Medical Association at Ipswich. It was there demonstrated that the ideas as to treatment expressed by those representatives of obstetrical science who were then present are still the same as those to be found in all manuals on obstetrics for the last 40 years. Professor J. W. Byers who opened the discussion, Dr. R. Boxall who represented the intended introducer, Dr. W. R. Dakin, the President, almost everyone who spoke, showed plainly that the same fundamental ideas were present in all their minds and influenced all their advice. That ideas are old is, of course, nothing against them. If they are true time can but more thoroughly demonstrate their truth. If they are true time will not only do that, but it will eliminate every particle of doubt as to their application in any given case—will enable their holders to act definitely and with confidence, knowing that their confidence will be justified by the result. Conversely, if the teachers and holders of certain ideas speak as vaguely and tentatively now as to practice as they did 20 years ago,

[1] A paper read at the opening of a discussion at the Clinical Society of Manchester on March 20th, 1901.

it is at least suggestive of the unreliability of the governing principles which they hold.

Now, the duty of the opener of a discussion, as I understand it, is usually to place before the members present all the points in the subject in question *seriatim*, dealing with etiology, symptoms, pathology, treatment, prognosis, in direct order, being chiefly careful to omit nothing and expressing no very strong or decided opinion himself, but leaving the whole question open for those who are to follow. After what I have said, however, you will probably not be surprised if I depart somewhat from that method to-night—so admirable in the majority of cases—because I fear that the result would not be that at which I am aiming.

Permit me, as a preliminary, to sketch as briefly as possible a case of this kind. Those of you who have encountered a really severe case will, I think, agree as to its fidelity to truth; those who have not will perhaps more clearly realise thereby the various points which I wish to emphasise. You have attended what has appeared to be an ordinary confinement—ordinary in every way probably, though sometimes certain things may have been noticed which differed from the typical condition. It may have been a primipara, and the young mother has welcomed with intense delight the new interest in life which has just been shown to her. The memory of previous pain is obliterated at once by the touch of the tiny fingers. She is happier than she has ever been and is looking forward to the blissful days in store for her with her little one to care for, to pet, and to be proud of. The young father has half wrung your hand off in his feeling of intense joy and gratitude to you for your skilful management of what to him is still the severest and most amazing operation of modern times, when the nurse mentions casually to you that there is rather more "loss" than she thinks there should be. You look at the napkin she holds out for your inspection. It is soaked with blood. You raise the bedclothes to inspect. The lower sheet is soaked as well and blood is gushing out of the vulva. The patient's face is paler, too, and her pulse is thin and rapid. You feel for the uterus, which a few moments ago you had left hard and firm above the pubes. Where is it? There is nothing here but a soft, rather full, pulpy sensation, which may be intestine or a totally relaxed uterus. Feeling about you detect a faint outline of what may be that organ. Compressing this you note with delight that it sensibly becomes firmer under your pressure. Continuing along its line, gradually more and more of the surface becomes palpable, firm, and resistant. You seek further still and in order to compress the new portion you relax your grip upon that which you at first held; that is firm, it will surely remain so whilst you attend to the rest. You succeed with the latter part, and bringing it down to the level of the first you pretty confidently pass your hand to the point at which you left that, but it is no longer there: it is where you found it at first and as flabby as ever. Calling the nurse you place the part which you have contracted in her hands, telling her to hold it fast, whilst you once more search for and compress your original portion. Having succeeded to some extent, but not so completely as at first, you tell her to remove her hand, so that you may compress the two together. That in its turn is gone, the nurse does not know how, "It just slipped away," and you can feel that the part you yourself are holding is just "slipping away" too. Meanwhile the flow of blood from the vagina has not decreased. It is if anything freer and more copious. The anxiety now written on your face and your efforts have not escaped the eyes of your patient or of her husband. Her own rapidly-increasing weakness has made her irritable and nervous. "What is the matter, doctor?" comes from both. "Am I going to die?" is added by the patient. By an effort you control yourself. "Die! nonsense," you say. "There is rather more bleeding than there should be, but we'll soon put that right. You just lie quiet while we get this stopped." "And you," to the husband, "had better go downstairs for a while. We'll call you up again as soon as we can." The husband departs, half satisfied. The wife, with "Oh, I do feel so ill," tries to be quiet. You get your hypodermic case and inject strychnine and ergotine, whilst the nurse gives the patient some brandy. Once more you try to force that sluggish uterus to contract by firm kneading of the abdomen. Once more the same half result, exciting your hopes at one moment, only to dash them to the ground at the next. "Send someone round to Dr. Jones," you say to the nurse; "tell him I should be very much obliged if he would come here." "Now," to the patient, "don't be alarmed, but we shall have to try something that requires two men, that is all." You get your bottle of ergot and give her a teaspoonful. "Oh, doctor, that *is* nasty, oh! oh! I'm going to be sick," and up comes your ergot again, with the brandy she had previously taken. You keep your hand on the uterus—or rather on the place where the uterus may be supposed to be, for you cannot feel it—whilst she vomits, but in spite of your pressure blood continues to flow as freely as ever. "Nurse, have you any very hot water?" By great good luck, which is not always to be depended on, she has plenty. By the same good luck the man you believe in most walks in at the same moment. "Good," you say, "now we shall do. Jones, this is 'p.p.h.' Just help me, will you? I am going to inject hot water." "Right," says he, pulling off his coat, "just let me sterilise my hands." "Oh, don't wait for that," you say, "she's pretty bad." By this time the patient is beginning to toss about and gasp slightly as if for breath. However, you get her into position and pull down the uterus with a vulsellum; the bleeding is still free, but a little checked. You pass in a long tube right up to where the fundus should be and pump in your hot water. A number of clots are washed out and the amount of blood following appears to be decidedly less. More and more hot water is used and at last it returns almost clear. "That's done it," you say; "now we shall be all right. Don't be afraid, Mrs. Smith, you're all safe now." "Oh, doctor, what is the matter, oh, I *am* ill. I'm going to be sick again." "Try not to, Mrs. Smith—here, suck this ice, that will stop it." For two or three minutes she is quiet, but her breathing is very short and quick, then she begins to be restless again, and suddenly vomits. As she does so you see the red gush of blood from the vulva once more. "What had we better do, Jones? you see she has spoilt it all by that vomiting." "Better use the hot water again, it stopped it splendidly the last time." So you repeat the performance whilst Jones squeezes the abdomen with all his force. This time the hot water certainly checks the bleeding, but not so completely. This may be due to the increasing restlessness of the patient who can with difficulty now be induced to be still enough to allow you to do what is necessary—you fear that your tube perhaps did not reach the fundus, though you passed it as far as before or further. But Dr. Jones reminds you that some clots or a bit of placenta may not be dislodged, and we are all taught that the presence of a clot or of a fragment of afterbirth acting as a foreign body may perpetuate the bleeding; so you pass in your hand and find it apparently in the abdominal cavity, for no boundary can you feel. The only thing which calms your anxious mind—now extremely anxious, not to say nervous, since the bleeding is freer than ever and the patient's lips and eyes are white—is the fact that you feel no intestine; otherwise you would be apt to fancy that the uterus had ruptured and your hand had passed through the rent. You bring out a few clots and pass your hand in once more. Apparently there are just as many clots as before. "This won't do, Jones." "Have you any ice?" to the nurse. Yes, she has some, and you inject ice-cold water. Again a check for a few moments. "Inject some more strychnine and ergotin, will you, Jones?" Jones does so, and looks very gravely as he inspects the pulse, conjunctivæ, &c. "She's very bad," says he, "I think you had better pack her. I have some iodoform gauze," and he produces a six-yard packet. You forcibly pull down the uterus with vulsellum forceps and clean the vagina, which you can easily do, for, curiously enough, as soon as you apply firm traction the worst of the bleeding abates. Note this fact, for I wish to call your attention to it later. Very carefully and methodically you clear out the clots from the interior of the uterus and proceed to pack in the gauze. You pack it all in, every bit, and you feel happy, for during the process no bleeding of any consequence has occurred, and you take off your vulsella and allow the os to reascend. But a glance at the patient's face makes you uneasy again; the pulse, too, is very quick and thin; this, however, may be only the natural result of the blood already lost. Jones puts his hand on the abdomen. There is no firmly contracted uterus to be felt—merely an increased fulness where the gauze lies. "Are you sure," says he, "that you packed the uterus itself?" "My dear fellow," you reply, "I put in enough to make her a ball-dress, and I will swear that it went into the uterus. Shall we pack in some more?" "Well," says he, "I don't like her looks. She looks very much to me as if there were some

concealed hæmorrhage. Her pulse, too, is very rapid. It hasn't made the uterus contract at all, and, for anything we know, she may just be bleeding away as fast as ever, and it wouldn't show until too late. I think, don't you? that we had better have it out again and use the injection of iron. Besides, after all, it is a foreign body, and you know foreign bodies in the uterus, if they don't make it contract, set up acute dilatation, and we shall be worse off than before. Better use the iron; that is our 'last resource' and surely we are justified now in trying it. Barnes says it is very effectual." So you set to work and pull it all out again, which takes a little time, but Jones is justified, for as soon as you unplug the cervix out comes once more a perfect rush of blood and clots. The patient is tossing wildly now, trying to sit up, gasping for breath. "Oh, doctor, doctor, am I going?" and then she vomits again. "Oh, nurse, oh, my poor little child. I'm dying, I'm dying. Send for my husband," and all the rest of the heart-breaking, nerve-shattering exclamations which go on now until the end. Well, you steel your heart to take no notice, whilst Jones and you prepare your iron injection which authorities tell you is your last resource, only to be used when everything else has failed, as in some cases it has directly killed the patient. With increasing difficulty, owing to the increasing restlessness, you get your tube in once more and pump in the iron. God be thanked: the bleeding stops, the whole discharges are blackened, and the flow ceases; but whilst you are congratulating one another a thin, bright red line trickles out once more over the black surface, becoming freer, fuller, brighter. You pump in more iron solution; same result. Hope for a few moments, disappointment, almost despair, the next. Meantime, the patient has become strangely still and Jones looks up. One look at her face and he seizes her wrist. "By Jove, she's going," says he, and rushes for brandy. A teaspoonful of this he tries to get her to swallow. The spoon rattles against the clenched teeth, the brandy runs down her face, and with a few long-drawn sighs, with wide open eyes and dilated pupils fixed on you, it seems to you reproachfully, she is dead.

I pass over, though you will not, the sudden wretched desolation of the husband, so much the more poignant because so unexpected, the interview with whom will be one of the saddest you will ever have to face.

I said that our dying patient looked reproachful, and no one who has been through such a scene but will understand why we should fancy so, and how her look will haunt us for days whilst we go over and over again all that has happened, and ask ourselves everlastingly, "What more could we have done? and why did not our measures succeed?" In the case which I have supposed everything appeared to be in our favour. We had a young healthy woman; our friendly medical brother appeared as soon as wanted; everything was at hand and had not to be waited for. Had things been otherwise, as they usually are, we might have blamed the lost time, but that is here impossible and yet we failed. Why?

Now you will notice, if you look back, that all our efforts were directed to two definite things. We had two definite aims—viz., first to obtain contraction of the uterus; and, secondly, in our last effort, to obtain local coagulation of the blood in addition. Well, is not that right? All authorities lay stress upon the absolute necessity of obtaining uterine contraction at any cost. As to this point, which is all-important to my argument I had prepared numerous extracts from Playfair, Galabin, Dakin, and Jellett, all of them text-books in use at the present moment in the various medical schools; but it was soon evident that I should only weary you if I attempted to read them all. One, however, I venture to give you, somewhat condensed, it is true, but merely omitting non-essentials. For the rest I confidently appeal to your own memories of the doctrines you yourselves have had drilled into you as to the truth of my statements. The authority I choose is that of Playfair, partly because his name is perhaps the best known, and partly because he elaborates and enforces his advice by repetition in various ways. He leaves no doubt whatever on the mind of the reader as to his views on this matter. He says[1]: "As there are only two means which nature adopts in the prevention of post-partum hæmorrhage so the remedial measures also may be divided into two classes—(1) those which act by the production of uterine contraction; (2) those which act by producing thrombosis in the vessels. Of these the first are the most commonly used, and it is only in the worst cases, in which they have been assiduously tried and have failed, that we resort to those coming under the second heading." And Galabin says: "The essential point in treatment is to secure contraction of the uterus." Playfair continues: "If the uterus be found relaxed and full of clots, by firmly grasping it in the hand contraction may be evoked, its contents expelled, and further hæmorrhage at once arrested. ..... Another method of applying uterine pressure has been strongly advocated by Dr. Hamilton. It consists in passing the fingers of the right hand high up into the posterior cul-de-sac of the vagina, whilst counter pressure is exercised by the left hand through the abdomen. During the time that pressure is being applied a full dose of ergot should be administered, and if one has already been given it should be repeated. We cannot, however, look upon ergot as anything but a useful accessory, and it is one which requires considerable time to operate" (and the time at our disposal is to be measured by minutes, not by hours). "Hypodermic ergotine offers the double advantage in severe cases of acting with greater power and much more rapidly. It should, therefore, always be used in preference." Then he mentions brandy in order to warn you against making the patient drunk, and hypodermic injections of sulphuric ether when exhaustion is very great. "Open the window, remove the pillows, keep the head low, and 'assiduously' fan the patient. It is often found to be useful to raise the feet of the bed on blocks of wood or books, so as to have the head lower than the pelvis. This will favour the current of blood to the head and lessen the tendency to syncope. *If bleeding continue* the hand should be carefully and gently passed into the uterus and its cavity cleared of its contents. The mere presence of the hand within the uterus is a powerful inciter of uterine action. When the placenta is retained it is the more essential as the hæmorrhage cannot be checked as long as the uterus is distended by it. ..... Various means are used for exciting uterine contraction by reflex stimulation. Among the most important of these is cold ..... but to be of use it must be used intermittently and not continuously. ..... Ice can generally be obtained, and a piece should be introduced into the uterus. ..... A large piece of ice may also be held over the fundus, and removed and re-applied from time to time. A very powerful remedy is washing out the uterine cavity with a stream of cold water by means of the vaginal pipe of a Higgenson's syringe carried up to the fundus. All these remedies, however, depend for their good results on the fact of the patient being in a condition to respond to stimulus, and their prolonged use, if they *fail* to excite contraction rapidly, will certainly prove injurious. Intra-uterine injection of hot water at a temperature of 100° to 120° has been highly recommended as a powerful means of arresting post-partum hæmorrhage, often proving effectual when all other treatment has *failed*. My own experience of this treatment is very favourable." He quotes Lombe Atthill as having published cases in which this method was successful and Milne Murray's experiments on rabbits as to the effects of hot and cold water in producing contraction. "Since 1887, plugging the uterine cavity with iodoform gauze and pledgets of cotton has been," he says, "advocated thoroughly in Germany, chiefly by Dohrssen, but since the publication of his paper a large number of successful cases have been published in which this treatment has been adopted so that it must be admitted as a useful resource in certain intractable cases. ..... I have no personal experience of this treatment, but the evidence in its favour is strong. It is clearly one which can only be resorted to in very intense cases of hæmorrhage when all other means have *failed*. It will obviously be essential to carefully watch the uterus, to make sure that blood is not escaping into and distending its cavity above the plug. If the uterine cavity should be only partially or ineffectually filled concealed internal hæmorrhage might very readily be going on without the practitioner's knowledge. Compression of the abdominal aorta is highly thought of by many continental authorities, but it is little known or practised in this country. It has been objected to by some on the theoretical ground that the hæmorrhage is chiefly venous and not arterial, and that it would only favour the reflux of venous blood into the cava." (Have, then, the cardiac valves ceased to act? and is all we know of the circulation and its system to be thrown aside in these cases?) "Cazeaux points out that on account of the close anatomical relations between the aorta and the vena cava it is hardly possible to compress one vessel

[1] Science and Practice of Midwifery, vol. ii., eighth edition, 1893.

without the other." (These two objections, it will be noticed, are mutually destructive, and besides, we are talking to qualified men, not to first-year students—men who, it may be presumed, have been taught to know the actual position of these vessels and their relation to the spinal column beneath—and then he makes what to me is a most astounding statement.) "It is most likely to prove useful in sudden and severe hæmorrhage, and if *it only control the loss for a few moments* it gives us time to apply other methods of treatment. As a *temporary* expedient, therefore, it should be borne in mind. It has the great advantage of supplementing, without superseding, other and *more radical* plans of treatment. If a battery is at hand the Faradaic current may be used, and is, *it is said*, a very powerful agent in inducing uterine contraction. When the hæmorrhage has been excessive and there is profound exhaustion firm bandaging of the extremities, by preference with Esmarch's elastic bandages, *if they can be obtained*, may be advantageously adopted, with the view of retaining the blood as much as possible in the trunk, and thus lessening the tendency to syncope. As a temporary expedient in the worst class of cases *it may occasionally prove of service. Supposing these means fail*, and the uterus obstinately refuse to contract after all our efforts—and, do what we will, cases of this kind will occur—*the only other agent at our command* is the application of a powerful styptic to the bleeding surface to produce thrombosis in the vessels. ..... As it is not proposed by anyone that this means of treatment should be employed until all ordinary methods of evoking contraction have *failed*, and as in cases of this kind the lives of the patients are of necessity imperilled, we should be fully justified in adopting it, even if its possibly injurious effects had been much more certainly proved. ..... Other local astringents may be eventually found to be of use. Tincture of matico possibly might be serviceable. ..... The styptic properties of creoline have already been mentioned. Dupierris has advocated tincture of iodine. Penrose strongly recommends common vinegar and gives directions how to apply it by means of a handkerchief soaked and introduced into the uterus." The italics are mine.

Now, if you refer to the other authors whom I have mentioned you will find that whilst they all agree as to the paramount necessity of evoking contraction they differ as to the value which they place on one or the other of these "remedies." Thus, Galabin[3] says that "there are three serious risks in the injection of perchloride of iron. First, a coagulum may be carried from a uterine sinus and cause pulmonary embolism. Sudden death from this cause has occasionally followed the injection. Secondly, the solution may pass along the Fallopian tubes and set up peritonitis. Thirdly, the clots formed by the iron solution in the uterus, as well as the thrombi in the vessels, are apt to decompose and set up septicæmia." Dakin[4] adds "that the very tough clot formed in the uterus is tenacious and difficult to expel, and it will not improbably putrefy and cause septic trouble." One author strongly advises against the use of ice inside the uterus, inasmuch as ice is often impure and may contain the micro-organisms of tetanus, whilst Playfair himself, as you will have remarked, says that "the use of cold, unless immediately successful, will certainly prove injurious."

I wish you especially to note the frequent repetition of the word "fail"—"if these measures fail, try," &c. Dakin apparently feels so sure that the earlier measures *will* fail that he says "the various manœuvres must succeed one another rapidly, and the preparations necessary for those to follow must be made while any one method is being employed." Am I not justified in saying that the whole tone of their advice is tentative and suggestive of mere experiment? One seems to hear them say, "Try this, that, and the other, but understand that neither I nor anyone else can answer for their efficiency and don't blame *me* if your patient dies."

But ask yourselves, "Of what did this patient die?" Did she die of an uncontracted uterus? Is there such a cause of death at all? No; she died of hæmorrhage. She bled to death just as much as if her carotid and jugular veins had been cut and you had no effective means of stopping the flow of blood from them. Now all writers on this subject subconsciously assume or directly assert that the *only* effective way possible to check hæmorrhage in this situation is by obtaining contraction of the uterus, or failing that by producing firm clots in the open mouths of the vessels concerned. But is that true? Have we no other means? and *how if the uterus cannot contract?* How if we are striving after an end which is unattainable from the first, and from the very essential conditions of the thing becomes more and more impossible with every ounce of blood lost? May not the reason of the whole lamentable business lie here? Writers talk of atony of the uterus, inertia of the uterus, but they talk as if the uterus were a sulky child, able to do what we ask of it if it only would, and only to be coerced by strong measures into doing it; and when we fail, as I will try to show you we are bound *ab initio* to fail, there is a feeling such as a parent has with a naughty child whose obstinacy has withstood a sound whipping and who still sulkily persists in refusing to do what we wish. What else in actual fact have we been doing to the uterus but whip it? Books call it stimulating the uterus to contract. In plain English, it is mere whipping, mechanical, by kneading, flicking with wet towels, forcible compression between one hand inside and one out, between both hands outside, between the hand outside and packing within, or chemical, by ergot and strychnine, any or all of the many ways in which you are counselled to whip this lazy obstinate uterus. It is all, when reduced to simple terms, mere whipping.

We are proceeding upon an implied premiss, which is that the uterus *can* contract if it will; but *can* it? The uterus is a muscle, and, like all muscles, after it has done a certain amount of work there comes a point when it can do no more effectively. Under pressure of will, of external or internal stimulus, it may do a little more, but it will be feeble, ineffectual, spasmodic. Some fibres may not be so exhausted as the rest, and the muscle will then contract irregularly. In the case of the uterus you may then get a temporary hour-glass contraction, a condition by no means to be desired. Every cyclist knows that if when the muscles have reached this stage further work is asked from them cramp follows, and that whilst, if rest is allowed to the tired muscle, it soon recovers its powers, with every additional struggle after it has reached this point, a longer and longer time must elapse before it is again capable of proper use.

Muscles differ not only in different people but in the same person at different times. What we are able to do with our muscles easily and with comfort one year we may find a difficulty in doing another year. And the uterus, being a muscle, shares in this unequal ability. That it has been equal two years ago to do the work of a confinement and have plenty of reserve force afterwards is no proof that there will be any reserve force at all this year, after the contractions necessary to expel child and placenta have taken place. That Mrs. Jones's uterus contracted firmly after a difficult confinement is no reason why we should expect Mrs. Smith's to do so after a comparatively simple and easy time. In every uterus at any given time there is a certain amount of force peculiar to itself alone, and when that is expended you have reached the physiological point of fatigue for that uterus at that time. Before any tired muscle can fulfil its function again properly it must have rest and a reasonable amount of blood circulating in it. But we have been giving this muscle no rest at all, and its blood has been steadily draining away from the first. Can you wonder that we have not succeeded?

Of course, the answer to this according to the present teaching would be, "But we cannot afford to give it rest, because our *only* means of stopping the loss of blood lies in its completing the task required of it, however unfit it may be to accomplish it. No other way is open to us except a measure—that of injection of iron—which may produce sudden death," and the whole gist of the matter lies in the question, "Is this true or not?" One of the most marvellous things to me is that knowledge obtained in one branch of our art is so often absolutely ignored by the teachers of another. Nowhere perhaps is this more flagrantly evident than in this same question of the treatment of post-partum hæmorrhage. Because the blood in this case comes from the interior of a hollow muscle at the end of a normal physiological act, it *ipso facto* apparently ceases to be governed by the laws which are admitted to govern bleeding in all other regions and at all other times, and requires to be dealt with by measures peculiar to itself; measures in which, however, the teachers who recommend them have so little faith that they are never tired of reiterating after each one, "Try this, and

[3] Manual of Midwifery, third edition, p. 748.
[4] Handbook of Midwifery, 1897, p. 483.

if it fails try the next on the list." But is this, of all others, the time for experiments? That these things fail is admitted by the very terms in which their advocates recommend them; that they were bound to fail I think I have shown you. If ever we need a remedy which will not fail we need it here; under such circumstances, if ever experiments are inadmissible it is here and now. But such practice can only be described as at best a series of experiments.

There is, at the outset, a tendency to confusion in the statement of causation. Every writer almost appears to consider it his duty to pile up a list of possible causes for this bleeding, and these causes are all given pretty much as if they were of equal importance. Most of these so-called causes are not immediate causes at all, but only contributory—such, for instance, as residence in relaxing climates, sedentary habits of life, &c., though they are placed in the same list and as being of apparently the same importance as the rest. Some are extremely rare, as hæmophilia; one, I believe, does not exist—disease of the ganglion cervicale uteri, gravely put forward by one writer. Every man seems to consider it his duty to add one more shovelful to the heap of dust, the clouds arising from which tend to obfuscate the unlucky practitioner's mental vision. And the mention of hæmophilia in this connexion is, though perhaps unavoidable, yet still very objectionable. The very idea of it takes all heart out of the medical attendant, who needs, *au contraire*, to brace himself with the firmest conviction that the hæmorrhage is perfectly under his control and can be infallibly stopped by his efforts. Forget it; wipe it out of your memory altogether. It is the rarest condition possible. Both it and the ganglion idea have served their purpose in filling up death certificates, but they have but little other use. All the other causes are divisible into two plain categories—first, those due to your own conduct of the case; and secondly, those favouring the early appearance of the physiological point of fatigue—producing, in fact, a tired muscle.

Of those causes due to your own conduct it is scarcely necessary to do more than notice them briefly. Though they are not likely to occur in your own practice you may be called in to rectify them in that of others, and therefore I mention them. You will see later that they also can best be dealt with by the plan which I am going to indicate. They are: torn cervix, torn vagina, inversion of the uterus, tearing off of the cord, the placenta being partially separated, too rapid and unskilful use of forceps, &c.

There remains, then, but one class, which embraces ninety-nine hundredths of the cases met with—those in which the uterine muscle is tired out at the close of the second stage of labour. The causes included in this class, always given as separate and distinct causes, producing their effects in different ways, but which you can see all agree in producing hæmorrhage only in one way—viz., by hastening the occurrence of fatigue in the muscle—are: the presence of fibroids in the wall, over-distension from hydramnios, development of twins or more children, previous habits of life tending to relaxation of the general muscular fibre, and life in hot climates producing the same result; whilst tedious or prolonged labour simply uses up the normal reserve force usually left after the completion of the second stage, and the point of fatigue so far as the stages are concerned is then reached early. For this class nothing but rest is in the least capable of doing any good. How are we to obtain it? and how are we to prevent our patient from bleeding to death whilst such rest is procured? Simply by applying in this situation the accepted rules of surgery in all other situations. Someone once said that surgical writs should run in the sacred cavity of the abdomen as well as in all other regions of the body, and only the remnants of our late superstitious fear of the peritoneum prevent us from a ready assent to this. A similar conservative spirit appears to pervade all that is written on the subject of post-partum hæmorrhage, and the uterus is treated as an organ apart, obeying only its own laws, laws absolutely opposite, apparently, in character, to those which we recognise as true in other regions.

What do we all do, almost instinctively, when confronted with hæmorrhage in any other part of the body? Our minds automatically reflect that all bleeding comes from vessels, vessels of two kinds, arteries and veins, *and can come from no other source;* that of these vessels, arteries come from a parent trunk, the closure of which prevents any loss from smaller branches, however numerous they may be; that veins in the same way converge to one parent trunk; and that if the point at which leakage from them is occurring be elevated above the heart blood will no longer escape from them. If a varicose vein or veins should burst in the leg, is not the first advice given in "first-aid" to elevate the limb? not that it may be as high or a little higher than the patient's head, but well above the level of his heart; and do we not know that the bleeding will at once cease? But such elevation must be decisive and purposeful, not the mere lifting of the bed foot to check syncope, such as described by Playfair. The uterus itself must be raised until it is higher than the heart, and that means of course, that the foot of the bed must be lifted much higher. The best thing, I believe, because the quickest, is to run a table underneath and to allow the foot of the bedstead to rest upon this; by such means you at once place the patient at an angle of 45° or 50° with the ground, but a chair with footstools or books piled upon its seat will do. The great thing is to take the readiest and quickest means of practically placing the patient in the Trendelenburg position. Elevation of the legs has another advantage, that it favours the return of blood from the lower extremities and so takes the place of another and favourite manœuvre of those who have separate plans for all these indications and do not grasp and attack from the point of view of the main principles involved—that of bandaging the legs upwards. Such bandaging takes time and after all only effects the one thing, the emptying of the vessels of the lower extremities.

Having controlled the venous loss we have the arterial to consider. The fact that blood is coming from 50 or 100 open tubes is of no importance if these tubes are all fed from one trunk. If we can control the trunk we close them all. But do they all come from one source? In a way they do, because they are all supplied from the aorta; practically they do not, because about one-sixth comes through the ovarian arteries, which arise from the aorta at a relatively high point above that at which we can apply pressure. Fredet, indeed, says that in the normal unimpregnated uterus the ovarian arteries do not supply the uterus at all, all the blood going to this organ coming from the uterines, that there is a complete break up of the ovarians into capillaries before they anastomose with the capillaries belonging to the uterines. I believe that, even if this is true, it is not always the case, and moreover that during the general development of the blood-supply attendant upon pregnancy the connexion between the two systems becomes much fuller and more direct, but even then you will see how much less relatively of blood is obtained from the former source. Five-sixths at least come through the uterine arteries which, coming from branches at the very end of the aorta, are controllable by pressure at any point along its trunk. The objection raised to pressure upon the lower part of the aorta, the plan which I recommend, is that thereby you do not absolutely shut off all blood-supply, but only five-sixths or so. But further consideration will show that this is no objection at all, that, on the contrary, it is a very great advantage. What is it that we wish to do? We wish to prevent the patient from bleeding to death whilst the uterine fibres obtain their absolutely needed rest. During that rest, if it is to be of any value, if it is to yield us the desired result of fresh effective contraction, those fibres must have a certain amount of healthy blood circulating amongst them. If we could absolutely prevent any blood from reaching them they could not recover. At the end of the time, however long it might be, the uterine fibres, the natural ligatures of the open vessels, would be as powerless to contract and to tie these vessels as when we began. Probably, indeed, they would be in a far worse condition, because they would be practically dying or dead. What we want is rest and recuperation, not necrosis. It would seem, indeed, as though the construction of the arterial supply to the uterus had been specially designed for our assistance in cases of this kind—that Nature herself has pointed out the way for treatment. "Block," she seems to say, "the main current of blood through the more direct route, that of the uterine vessels. Your patient cannot then lose any dangerous amount of blood. Meanwhile I, through the longer and more devious channel of the ovarians, will keep up a sufficient supply of blood, coming with no great force and in no great quantity, to preserve the vitality of the organ, assisting in the formation of small plugs in the open arterial mouths, vivifying and strengthening the muscular tone, which temporarily is at too low an ebb, so that when once more the full force of the blood-current is allowed to bear upon them the vessels shall be found closed by clot and constricted by the now firmly contracting fibres around."

How is all this to be brought about? Very simply indeed. The closed fist is applied with its ulnar surface resting upon the aorta as it lies over the left side of the vertebral column, and just sufficient pressure is exerted obliquely backwards and towards the right so as to enable it to compress that vessel against the unyielding surface beneath. At any point accessible over the course of the abdominal aorta this compression can be exerted and there is always a sufficient extent to enable us to vary the site of impact. The prolonged tension of the abdominal walls which was inevitable during the preceding pregnancy has rendered them so lax and unresisting now that the uterus is empty, that the vessel is readily found and as readily controlled. At first, if the patient has lost much, the sensation of pulsation against your hand is very faint, but it is astonishing how quickly this becomes more and more distinct until within a very short time the blood, now virtually imprisoned in the upper half—the only important part—of the body, raps vigorously at the closed door. Whilst this compression is kept up it is an easy matter to clear the uterus of clots, portions of placenta, membranes, &c., so that when the uterus begins again to contract its newly-regained strength may find no needless work to do in ejecting them. Any tear in the genital canal can be explored and reunited, and all with perfect ease to the practitioner and safety to the patient since the area of operation is no longer obscured by floods of blood.

If you look back you will remember that we noticed that firm traction upon the uterus checked the bleeding, and that whilst this traction was kept up we were able to plug the uterus, but that as soon as the os was allowed to re-ascend, or at all events within a few minutes, it became obvious that once more bleeding had recurred. Why did this happen? and what light does it throw upon the proposed method of treatment? As we all know, the uterine arteries make an acute angle in their course when they reach the uterus on either side. This angle in the normal condition is so curved as not to obstruct at all the flow of blood in the vessel at this point. A little increase in the acuteness of the angle, however, such as is produced by firm traction on the uterus, effectually kinks and closes these vessels, and you have practically the same effect, so far as the blood-supply is concerned, as you obtain by pressure on the aorta below the origin of the ovarian arteries—a shut-off of the supply of blood through the uterine arteries. This proves two things: first, that the main supply, the only dangerous supply, the supply which permits of such a loss as may be called flooding, comes through the uterine arteries; and, secondly, that if these are closed by any means the flooding ceases. You may say, Why not, then, keep up this traction alone? Well, in the first place, prolonged traction upon the os means wounding the os, possibly tearing out, and in any case the presence of a foreign body in the vagina and therefore increased risk of sepsis. Why should we run these risks when we have as certain, as scientific, and infinitely more easy a method in external aortic compression? Landau's method of vaginal hysterectomy, which consists in splitting and removal of the uterus without previous ligation of its vessels, is based upon this fact. From the first incision to the last firm traction is maintained upon the uterus, and this organ can then be divided from top to bottom without the loss of a teaspoonful of blood.

I scarcely care to say anything about compression of the aorta by the hand inside the uterus. To some minds it would appear as though a simple and easy method must be objected to because it *is* simple and easy and appeals to common sense—that for it something else more difficult, more dirty, and infinitely more dangerous must be substituted, although the result aimed at and obtained is precisely the same. It may be that the dirty method has the advantage of having been recommended by some foreign authority, and that to them is all sufficient. I do not waste your time in discussing it further. As to the length of time during which this compression should be kept up, a surgeon compressing the main artery of a limb keeps up his pressure until all the vessels arising from that main artery which had been bleeding are tied. In this case our ligatures are the revived fibres of the uterine wall, and we must wait until these fibres begin again to contract. It will be found in practice that this pretty much coincides with the firm, strong impact of the blood-current against the compressing hand; when the force of this has well revived, so also will the muscular force of the uterus be found rejuvenated; but the other hand of the surgeon can easily judge from time to time of its occurrence, no longer pounding and kneading its fibres in a hopeless struggle to *make* it contract, but gently touching it from time to time in order to gauge its condition and its tendency to contract of its own free will. It is then that the compressing hand is very slowly and gradually lifted, not permitting the full force of the aortic current to drive against the clots already formed by the blood from the ovarian arteries all at once, but gradually more and more, as they prove their capacity for secure hæmostasis. When once this is the case the hand may be removed, and the contraction now established, being a natural one, will be found to be also, and, therefore, a trustworthy one. For four or five minutes the parts should be watched. It is, of course, possible that one may have removed the controlling pressure a little too soon. The force of the aortic current may have driven out some of the newly formed plugs and some hæmorrhage may recur. If, however, you have fully understood the plan upon which you are proceeding you will feel able to consider this of but little importance. You will simply replace your pressure for a short time longer, knowing that you have now to deal with a reviving, not an exhausted, uterus; that some of the plugs still remain and are moment by moment becoming firmer, harder, better gripped by the recuperating fibres around; that the open mouths of the vessels from which these plugs have been dislodged are being moment by moment decreased in calibre; that the fresh clots which are again forming there do not require therefore to be so large as before. In a while you remove your hand again with increased caution and greater slowness and deliberation to find that now all is secure. There is all the difference in the world between being consciously on the up-grade and being steadily on the down-grade. You will leave the bed in its inverted position for 24 or 48 hours; not now so much to check venous bleeding as to favour the concentration of the amount of blood remaining in the patient, which must necessarily for a while be less than normal in and around the vital centres.

Now, this and this alone is, I conceive, the one and only primary duty of the medical attendant in these cases. All other things are subsidiary and must never interfere with or lessen in effectiveness this proceeding. If one hand is tired the other can be substituted, the second being well in place and effective before the pressure on the other is lessened and removed. If both hands are tired it is easy to teach the nurse to replace your own by hers; incidentally it may be pointed out that it would be practically impossible to teach her to replace yours if it were inside the uterus, whilst even if it were such pressure could not be continuous, which is essential to success. During the time that the nurse or your medical friend keeps up the control you can, if you choose, transfuse with or inject per rectum saline solution—a perfectly useless measure so long as leakage is persistently going on; you can clear out clots, pieces of placenta, membrane, &c.; you can mend tears, sew up a split perineum, do anything advisable in perfect safety and with perfect ease, since the area in which you are working is clear of blood, and the patient is quiescent, her cerebral centres being well supplied.

I fear that you may consider all this as somewhat didactically expressed. At the same time, you will see that the main reason for my bringing forward this subject is that teachers of obstetrics have always spoken tentatively and hesitatingly with reference to it; that they hold no doctrine strongly; and that therefore, in direct consequence of this hesitancy, their disciples find themselves, when called upon to act, in a pitiable state of uncertainty. If I had had nothing clearer and more definite to offer you I should but have wasted your time and my own. Holding these opinions as I do with absolute certainty, because based upon anatomical and physiological facts supported by repeated experience of the results of the treatment which I have sketched out, I should but leave your minds in the same condition of doubt which should here be impossible had I not spoken as forcibly and clearly as I was able.

Manchester.

THE SANITARY INSPECTORS' EXAMINATION BOARD.—The next examination for certificates of qualification for appointment of sanitary inspector or inspector of nuisances, under Section 108 (2) (*d*) of the Public Health (London) Act, 1891, will be held in London on Tuesday, May 7th, and the four following days. Particulars will be forwarded on application to the honorary secretary, Mr. W. R. E. Coles, 1, Adelaide-buildings, London Bridge, London, E.C.

REMARKS ON ENLARGEMENT OF THE INGUINAL GLANDS CHIEFLY IN CONNEXION WITH THE DIAGNOSIS OF PRIMARY SYPHILIS.

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IT is well known that evidence based on the condition of the inguinal glands frequently forms an important factor in the diagnosis of affections of the genito-urinary organs, but the correct interpretation of evidence thus obtained is by no means always an easy matter. The main purpose of what follows is to draw attention to the fact that in many cases, and notably in the case of primary syphilis, the diagnostic value of inguinal glandular enlargement depends more on the circumstances of the particular case than on what may chance to be discovered in the groins at any particular time.

Now, in the examination of any case in which there is a lesion within the area drained by lymphatics which go to the inguinal glands, the first thing is to be careful not to assume without due inquiry that any glandular enlargement which may be present at the same time is the direct consequence of that lesion. Another important point to bear in mind is that different persons vary greatly as regards susceptibility to glandular enlargement. Tuberculous subjects seem to be most liable to have the lymphatic glands affected on slight provocation, but many others, apparently not tuberculous either in person or history, also have easily vulnerable glands. This difference in susceptibility is well shown by those cases, so common among the lower classes, in which one child with an unhealthy throat or a dirty head, and sometimes without any discoverable local cause, will have more or less enlargement of the cervical or occipital glands, whilst another child in apparently similar circumstances may have no perceptible enlargement of the glands at all. The same observation also applies, though this is not so generally recognised, to the inguinal glands, and it is a fact that many men and boys [1] who make no complaint whatever have enlargement of these glands to an extent which, although in itself of little moment, may yet in certain circumstances become of considerable importance, as will be seen by-and-by. In some of these cases, no doubt, there has been acute adenitis in connexion with some previous morbid process, but in many others—which are more likely to cause difficulty in diagnosis later—the patient is unaware of the presence of enlarged glands, or if he knows it is either unable to throw any light on the subject or mentions some such cause as a strain in jumping, or running, or riding on horse or cycle. In some cases, perhaps, no other cause can be detected by the surgeon either, but in most of them, I think, either with or without a history of strain, some form of mild but long-continued irritation is present, and this is most frequently balano-posthitis, not necessarily enough to cause discomfort, but merely such a condition as may be due to a prepuce not always very long or very tight, but worn habitually forward and insufficiently cleansed. Chronic glandular enlargement of this kind is usually slight both in degree and in the number of glands affected—sometimes only one in one groin, sometimes one in each groin, sometimes two in one groin and one in the other, rarely more than three or four altogether—and the glands are, as a rule, indolent, mobile, and painless. But whatever may be the cause the important point is that a man who is apparently healthy and without any history of venereal or other disease to account for it may, knowingly or not, have a degree of indolent enlargement of the inguinal glands which of itself is indistinguishable clinically from that which is found in some cases of primary syphilis. And here it may be remarked that too much is sometimes expected in the way of glandular enlargement as well as of induration of the primary lesion in syphilis. In many cases, no doubt, both are so well marked that the diagnosis is easy enough. But in syphilis, as in other diseases, a large number of cases are not typical according to the text-book description, and thus are more or less liable to be overlooked or mistaken, and yet if due attention be paid to details which are sometimes considered too trivial for notice most of them ought to be diagnosed with as much certainty as the so-called typical examples.

Before going further it will be convenient to describe briefly the characteristics of the adenopathy of primary syphilis. When no complication is present and when the groins were clear previously the glands first become palpable at some period during the fortnight following the appearance of the primary lesion. The exact time varies in different cases, but it seems to be most commonly about 10 days. The enlargement is gradual and progressive—that is to say, one gland enlarges first and is soon followed by others, but the first usually attains a larger size than those which follow. The enlargement goes on slowly until a group of glands, the number of which varies in different cases, can be plainly felt and sometimes seen in both groins. The glands then seem to remain stationary for a time and they afterwards slowly diminish and finally disappear in the same gradual manner. In typical cases, and when the enlargement has reached its height, a group of glands from three to six or even more in number can be felt in each groin. But besides being multiple the glands are also indolent and separate—that is, they are not tender when handled and each can be clearly defined and separated from the others by palpation. They are also freely moveable beneath the skin, are of moderate size, and are more or less hard. Hardness, however, is a variable quality in syphilitic as in other affections of the glands, and the same remark applies also to the shape of the glands, though one sometimes hears of "amygdaloid" or "bullety" glands, as if such terms had special significance. Both groins are usually affected, though the number of glands in each often varies considerably; but sometimes all the glands are in one groin and that not always on the same side as the primary lesion.

When all the features mentioned above are present and when those of the primary lesion correspond the diagnosis is easy. But the cases with which we are now chiefly concerned are those which are atypical and in which the diagnosis is sometimes difficult. The glands, for example, may be few in number and insignificant in size, the state of the groins, in fact, being merely such as has already been described to be not uncommon without syphilis. If, then, a patient comes for advice with enlarged glands accompanied by some form of lesion of the genital region the first question we have to decide is whether the enlarged glands are due to that lesion or not. And if we know nothing about the previous condition of the groins this point cannot be decided at once by the glands themselves, though taken in conjunction with the primary lesion and the history we may be able to arrive at a correct diagnosis. When we are unable to do this at the first visit the exact state, both of the primary lesion and of the groins, must be noted down for future reference, and if the examination be repeated at sufficiently frequent intervals and the peculiarities and course of syphilitic adenopathy be borne in mind we shall rarely fail to determine the nature of the case in a short time. But if in such a case we happen to know what the condition of the groins was beforehand we shall obviously be in a much better position for making an immediate diagnosis. It is an excellent rule, therefore, to make a practice of taking note of the groins as a matter of routine in patients whom we may have to examine for any reason, and all the better if this knowledge be acquired before there has been any risk of contagion, for such a knowledge of what may be called inguinal "geography" may make all the difference between a prompt and a tardy diagnosis should any venereal or other disease show itself later. To illustrate this let us suppose that a man whom we know to have had clear groins previously exposes himself to the risk of contagion and after an interval comes to us with some form of primary lesion which has not been irritated and accompanied by one small indolent gland in one groin. Suppose, further, that a few days later we find that gland a little larger and another quite small one on the same or on the opposite side, even by that time the evidence of syphilis will be considerable, provided, of course, that the character of the primary lesion, and perhaps the history also, are not altogether opposed to this view. On the other hand, a similar degree of glandular enlargement of unknown origin will simply make the diagnosis doubtful for the time being, whilst a similar state of things which we know to have been present previously will render the evidence of syphilis so far as the glands are concerned *nil*. In both cases we shall have to wait and to watch, but in the last we start with the

[1] I am not sure how far these remarks would apply to women.

advantage of knowing that two glands, at any rate, are not syphilitic.

The exact duration of primary syphilitic adenopathy is a difficult question, for it must be remembered that after the secondary stage has been reached the inguinal may share with other glands in a more generalised adenopathy which is independent of the position of the primary lesion and therefore beyond the scope of the present remarks. It will be sufficient to say here that the duration of the primary adenopathy probably varies within certain limits according to the particular case, partly owing to the effects of treatment and partly to the presence or absence of complications, but that the whole course is usually comprised within a period of a few months. For our present purpose the gradual and progressive character of the change is the most important point, and it must also be remembered that the enlargement is only a temporary one, wherein it differs from the simple form before mentioned which may remain apparently unaltered for many months or even years and sometimes perhaps permanently.

Among the various causes of atypical adenopathy it is perhaps hardly necessary to mention the previous removal of some of the glands by operation or their destruction by some morbid process. In such patients if syphilis be afterwards contracted the extent of glandular change will depend on what has happened beforehand in each case, but the presence of scars in the groins will usually be sufficient to prevent mistakes in diagnosis.

Besides the numerous cases in which the primary adenopathy is slight or otherwise atypical there are rare instances in which no glands can be felt. In most of the cases of this kind that I have seen the patient has been either very fat or in the habit of wearing a truss, the pressure of which seems occasionally to prevent enlargement of the glands. Cases have also been recorded of absence of enlarged glands in connexion with a phagedenic primary sore.

Although primary syphilis of itself probably never causes acute inflammation and still less suppuration of glands, yet as complications both occur not infrequently, especially among the lower classes.[1] For we may have a mixed infection of the glands just as we have in the case of the sore, and if the sore inflames and suppurates the glands may follow suit, and thus the distinguishing characteristics of both may be temporarily obscured. Periadenitis may be slight and sub-acute and merely sufficient to mask the outline of the syphilitic glands, or it may go on until they are all glued together into a large irregular mass known as a "conglomerate bubo" which may or may not suppurate according to circumstances. When the glands are affected early, as in the case of the local chancre, for example, a sharp look-out must be kept on both sore and glands, so that the changes peculiar to syphilis may not be overlooked when the incubation period has elapsed.

But in addition to these accidental complications there are others which are avoidable and which, therefore, ought not to occur. I refer to those due to the application of irritants[2]—especially nitrate of silver—to venereal sores and iodine preparations to the groins. This has been a fruitful source of diagnostic error in the past and to a certain extent probably is so still.

Although multiple indolent glands form one of the most important features of primary syphilis, it must be remembered that they are not in themselves proof of it, and that an apparently typical condition of the groins is sometimes due to other causes, more especially in persons whose glands are unusually susceptible. Among such cases may be mentioned severe gonorrhœa, urethral irritation from too strong injections or other injury, irregular herpes, severe balano-posthitis, and tuberculosis. The diagnosis will depend on the history, on the absence of an indurated primary lesion, and on careful watching throughout the incubation period of syphilis.

It may not be out of place, perhaps, to say a word about examining the groins, for if the examination be made carelessly but little real information will be gained. Digging the fingers into the groins of a sensitive patient in the upright position is quite unlikely to lead to any useful result. In all doubtful cases, therefore, and, indeed, whenever accuracy is desired, the patient should be lying down. In many cases when he is standing up muscular contraction prevents a complete examination and, moreover, what may appear to be an indefinite thickening in the groin in the standing position can often be resolved into several glands in the supine position. With the patient lying down, then, with the muscles relaxed and with the inguinal regions fully uncovered, each groin should be gently and deliberately gone over with the fingers of one hand, and as each gland is found a finger tip of the other hand is placed on it and kept there until the whole groin has been examined. The number, position, form, and size of the glands are then noted down at once for future reference, and for this purpose I have found a rough and simple diagram like this of great assistance. A series of figures of this kind will often convey more information about the state of the groins than many lines of writing.

It must be familiar to everyone that whenever the subject of visceral or other late form of syphilis is discussed by physicians there is general agreement respecting the frequent absence of any clear history or other evidence of the earlier signs of the disease. Indeed, it seems to have been chiefly this circumstance that led an eminent physician to suggest not long ago that what is generally known as the local or soft chancre may be responsible for some of the nervous maladies now attributed to syphilis. But whether this suggestion be or be not substantiated by future observation it would not do any harm in the meantime to those of us who are more accustomed to see and to treat primary syphilis if we were to look upon this frequent absence of early history as a hint that perhaps we are not always sufficiently careful in our diagnosis. There can be no doubt that for some reason or other a considerable number of cases of syphilis are overlooked or mistaken—and consequently untreated—in the earlier stages. In the great majority, of course, the fault is that of the patient himself who is either too unobservant to notice the early signs or too careless to seek medical advice if he does notice them, and in many others, though he may take advice at first, he neglects to follow it and to present himself for examination during a sufficient length of time. But there still remain a certain number of cases to be otherwise accounted for, and I venture to think that these might be diminished by careful attention to matters of detail which, as I have before remarked, are sometimes considered too trivial for notice.

The diagnosis of primary syphilis, it should never be forgotten, is based not on any one sign but on three things: (1) the history; (2) the primary lesion; and (3) the state of the nearest gland or glands. The first of these, for which we have to trust the patient, is often unfortunately too vague to be of much use in diagnosis, though it is of real value in some cases and therefore should not be neglected. The other two can be observed by the surgeon himself and should always be closely watched for a sufficient length of time, having regard to the incubation period. If this were always done and if—which is quite as important—nothing were done by the patient or the practitioner to interfere with the diagnosis probably few cases of syphilis would escape detection during the primary stage.

In what has been written above I have tried to indicate some of the points in connexion with the last-mentioned though not least important of the three factors on which the diagnosis of primary syphilis depends.

Old Burlington-street, W.

[1] Of 116 cases of primary syphilis treated by the late Mr. Berkeley Hill and myself at the Male Lock Hospital 10 had acute suppuration of the inguinal glands.

[2] See "Note on Certain Modes of Treatment which Interfere with the Diagnosis of Syphilis," THE LANCET, May 7th, 1892, p. 1025.

THE MEDICAL GUILD.—The annual report and balance-sheet of the Medical Guild for 1900 states that the council of the Guild has held 14 meetings during the past year and many meetings of sub-committees have been held. The subjects dealt with included Reform of Provident Dispensaries, Club Practice, Hospital Reform, and Legislation for Midwives. A conference was held between the Guild and the Provident Dispensaries Medical Officers' Association, which it is hoped will be productive of good results. With regard to club practice the question of representatives of the Guild attending a meeting of the council of friendly societies in Manchester is being considered. A conference of medical societies organised by the Guild is to be held in Birmingham this year on the lines of that held last year in Manchester. The total number of members at the date of the report is given as 219 and the finances show a balance of close upon £50.

REMARKS ON THE HOLMGREN TEST.

BY F. W. EDRIDGE-GREEN, M.D. DURH., F.R.C.S. ENG.

THERE are few points in medical practice in which the change of opinion has been more complete than that with regard to the Holmgren test for colour-blindness. If there be at the present time any specialist who is in doubt about its efficiency I shall be only too pleased to give him an opportunity of examining a case which has passed the test even under the most rigid and careful examination. The reader will probably think that this being the case it is hardly necessary to again draw attention to its defects and the necessity of having a proper test. A few years ago the Royal Society appointed a committee to decide upon an efficient test for colour-blindness and the Board of Trade are now using the Holmgren test at the recommendation of that committee and thereby endangering the lives of thousands of persons. Few will credit, unless they have tried, how exceedingly difficult it is to convince men of a perfectly obvious and easily ascertained fact if this fact be in opposition to their preconceived notions. In all ages it has been so and probably always will be so, but there is no doubt that a very great advance will be made in knowledge when scientific men recognise this psychological source of error and cease to reject facts without considering them because they are so certain that the facts are wrong that they will not even take the trouble to confirm their convictions. It will be of untold advantage to knowledge when this obstacle is removed from the path of the earnest seeker after truth.

It is not my object in this article to point out in what way this test is defective—this I have already done many times in the minutest detail[1]—but to give the opinions of others, including those who had previously opposed me most strongly. I must, however, mention that the test is very inefficient; a great number of normally sighted persons are rejected and three divisions of the dangerously colour-blind nearly always escape detection by it. It may be a matter of surprise to those who know the facts of colour-blindness as they are to be found in the text-books that the test can possibly fail. The reason is that the majority of the so-called facts are erroneous. The writers have put down the facts as they ought to be according to some theory of colour-vision, not as they really are.

The President of the Ophthalmological Society, Mr. Anderson Critchett, writes: "I do not regard the Holmgren test as a perfect one."

Mr. T. H. Bickerton writes as follows[2]: "To be perfectly candid, I was, up to a comparatively recent date, a firm believer in the all-sufficiency of the test. In fact, I informed the Royal Society Commission which investigated the seamen's eye-sight question that I was prepared to pin my faith to the Holmgren wool test. Some little of this confidence has, I need hardly say, been shaken by the discovery of the phenomena to which I have alluded." Mr. Bickerton also quotes Dr. Hubert Seager, Dr. G. Mackay, and Dr. Angus McGillivray.

Dr. Seager writes: "I do not remember to have yet seen any discussion on the peculiar form of colour-blindness to which I myself, and no doubt other people as well, are subject—inability to distinguish at night between a red and a green light at a distance exceeding half a mile, though I can pass any test for colour or long sight in the daytime and can distinguish coloured lamps perfectly at night within half a mile's distance. I tested this condition of my eyesight again last year when I was at sea for a week or two and found it unaltered. Naturally such a state of colour-blindness might lead to very serious accidents at night and the Board of Trade tests should be adapted to such defects."

Dr. Mackay writes on the subject as follows: "It seems to be scarcely appreciated as it ought that there exist persons whose perception of colour appears to be correct in quality but is congenitally defective in quantity or intensity. The subjects of this affection can pass successfully such a test as Holmgren's applied in the orthodox way since they inspect the skeins at close quarters. They appear to see colours much or quite as the normal eye provided the stimulus of colour rays applied to their retina is sufficiently strong, but if it be weakened by dilution with white light or removal of the source of colour to a distance their defect is made manifest."

Dr. McGillivray remarks as follows: "Now a candidate may arrange the Holmgren tests with perfect accuracy and recognise and name promptly the colours used in signalling, yet, though possessing perfect distant vision, he may be quite unable to tell the difference between a red and a green signal at the distance of a few yards even in a clear atmosphere."

Dr. Karl Grossmann writes: "Not so long ago a case came under my notice where a red-green blind person, very well educated, acquitted himself perfectly well of the examinations (repeated ones) with Holmgren's wools but failed to recognise some of my glass letters and other tests. I am sorry to have to keep the gentleman's name to myself, as he strongly objects to having his defect known, but for those who perhaps think my experience in this instance too exceptional I need only refer to similar experiences published by Professor Pflüger of Berne. He found in a post-graduate course of ophthalmology which he was then giving to 16 army surgeons that there were two of them completely red-green blind, as proved by his own and other tests, but when tried with Holmgren's wools they made not the slightest mistake. This may suffice to show that Holmgren's test is not sufficient for every case of colour blindness. Especially in the case of the educated we have to be extremely careful, and men who prepare for the command of a ship belong to this class."

Dr. Lindsay Johnson writes: "I consider your lantern test and neutral glasses as absolutely necessary to supplement the wools."

Mr. Judge Baldwin, Mr. A. St. Clair Buxton, and Professor H. Cohn have also pointed out the defects of Holmgren's test, and the two latter have given cases of colour-blindness which have escaped detection by the test.

Mr. E. Nettleship examined one of my trichromic cases and very kindly allowed me to state when I showed the case subsequently at the Ophthalmological Society of the United Kingdom that the man had been examined and passed by him.

I have many more letters in confirmation of the above.

Incredible as it may seem, the report of the Committee of the Royal Society contains internal evidence that the Holmgren test is not satisfactory. The last page of the report gives a summary of the cases of colour-blindness detected at the examination of about 300 railway employés. There are two facts to be noticed—first, that five colour-blind persons escaped detection by the wool test; and, secondly, that no colour-blind person escaped detection by all the lantern tests—that is to say, that though a colour-blind person was passed by one lantern test the same man was rejected by another examiner using another lantern test. The obvious conclusion is, therefore, that a lantern test could be constructed that would detect all cases.

I think that it will be admitted that I have made out a case for a fresh inquiry into the subject. What we want is a careful and unbiased inquiry. All facts should be carefully examined and should not be rejected without consideration because they do not fit in with a particular theory.

Hendon.

[1] Colour Blindness and Colour Perception, International Scientific Series.

[2] Brit. Med. Jour., March 17th, 1900, p. 621.

THE CHEMISTRY OF NERVE-DEGENERATION.[1]

BY F. W. MOTT, M.D., F.R.C.P. LOND., F.R.S.,
AND
W. D. HALLIBURTON, M.D., F.R.C.P. LOND., F.R.S.

WE have previously shown that in the disease general paralysis of the insane the marked degeneration that occurs in the brain is accompanied by the passing of the products of degeneration into the cerebro-spinal fluid. Of these, nucleo-proteid and choline are those which can be most readily detected. Choline can also be found

[1] Abstract of a paper read before the Royal Society on March 14th, 1901

in the blood. We have continued our work and we find that this is not peculiar to the disease just mentioned, but that in various other degenerative nervous diseases (combined sclerosis, disseminated sclerosis, alcoholic neuritis, and beri-beri), choline can also be detected in the blood. The tests we have employed to detect choline are mainly two: (1) a chemical test—namely, the obtaining of the characteristic octahedral crystals of the platinum double salt from the alcoholic extract of the blood; and (2) a physiological test—namely, the lowering of blood-pressure (partly cardiac in origin and partly due to dilatation of peripheral vessels) which a saline solution of the residue of the alcoholic extract produces; this fall is abolished or even replaced by a rise of arterial pressure if the animal has been atropinised. It is possible that such tests may be of diagnostic value in the distinction between organic and so-called functional diseases of the nervous system. The chemical test can frequently be obtained with 10 cubic centimetres of blood.

A similar condition was produced artificially in cats by a division of both sciatic nerves, and is most marked in those animals in which the degenerative process is at its height, as tested histologically by the Marchi reaction. A chemical analysis of the nerves themselves was also made. A series of 18 cats was taken, both sciatic nerves were divided, and the animals were subsequently killed at intervals varying from one to 106 days. The nerves remain practically normal as long as they remain irritable—that is, up to three days after the operation. They then show a progressive increase in the percentage of water and a progressive decrease in the percentage of phosphorus until degeneration is complete. When regeneration occurs the nerves return approximately to their previous chemical condition. The chemical explanation of the Marchi reaction appears to be the replacement of phosphorised by non-phosphorised fat. When the Marchi reaction disappears in the later stages of degeneration the non-phosphorised fat has been absorbed. This absorption occurs earlier in the peripheral nerves than in the central nervous system. This confirms previous observations by one of us (M.) in the spinal cord in which unilateral degeneration of the pyramidal tract by brain lesions produced an increase of water and a diminution of phosphorus in the degenerated side of the cord, which stained by the Marchi reaction.

The paper is illustrated by tracings of the effects on arterial pressure of the choline separated out from the blood of the cases of nervous disease mentioned and from the blood of the cats operated on. Tables are also given of the analyses of the nerves and drawings and photo-micrographs from histological specimens of the nerves. A summary giving the main results of the experiments on animals is shown in the following table:—

Days after section.	Cats' sciatic nerves.			Condition of blood.	Condition of nerves.
	Water.	Solids.	Percentage of phosphorus in solids.		
Normal	65·1	34·9	1·1	Minimal traces of choline present.	Nerves irritable and histologically healthy.
1-3 ...	64·5	35·5	0·9		
4-6 ...	69·3	30·7	0·9	Choline more abundant.	Irritability lost; degeneration beginning.
8 ...	68·2	31·8	0·5	Choline abundant.	Degeneration well shown by Marchi reaction.
10 ...	70·7	29·3	0·3		
13 ...	71·3	28·7	0·2		
28-37...	72·1	27·9	Traces.	Choline much less.	Marchi reaction still seen, but absorption of degenerated fat has set in.
29 ...	72·5	27·5	0·0		
44 ...	72·6	27·4	0·0	Choline almost disappeared.	Absorption of fat practically complete. Return of function; nerves regenerated.
100-106	66·2	33·8	0·9		

IN consequence of the death of Professor Manassein of St. Petersburg we regret to learn that the *Vrach*, the foremost medical weekly paper in Russia, which was founded by him, is likely to be discontinued, at all events after the close of the current year.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF ERYTHEMA SCARLATINIFORME DESQUAMATIVUM.

BY C. KILLICK MILLARD, M.D., D.SC. EDIN.,
MEDICAL OFFICER OF HEALTH, BURTON-ON-TRENT.

As comparatively few cases of this disease have been recorded in this country, and as from a diagnostic point of view the affection is of importance on account of its resemblance to scarlet fever, the following case may be of interest. The case was under the care of Mr. E. C. Stack, F.R.C.S. Irel., by whose courtesy it was brought to my notice.

The patient, a man, aged 38 years, was attacked on Nov. 24th, 1900, with slight pyrexia and malaise accompanied by an intense universal scarlatiniform eruption. He was first seen by me on the 26th. The eruption was then beginning to fade. It consisted in a diffuse erythema affecting the skin everywhere, including the face, the palms of the hands, and the soles of the feet, and presenting an appearance closely resembling that of a severe case of scarlet fever. The tongue was slightly furred, but the fauces appeared to be unaffected. The pyrexia and malaise had now passed off. On the 27th, three days from the onset, desquamation set in, beginning on the upper part of the chest, and it rapidly involved the whole surface, the palms of the hands and the soles of the feet being affected last. The process developed just as in scarlet fever, but with more rapidity. It was very profuse, the epidermis in some parts coming away in sheets. It continued for about three weeks, the patient returning to work at the end of that time after making an uninterrupted recovery. An examination of the urine revealed nothing abnormal. The patient, who otherwise had enjoyed good health, had suffered from attacks similar to the above ever since he was a child. They usually recurred about once every 12 months, irrespectively of season. He once, however, had two attacks in three months. He had never been able to account for them in any way and was unaware of any cause, dietary or otherwise, tending to determine them. They came on quite without warning, the first noticeable symptom being a feeling of burning heat in the skin immediately followed by the appearance of the eruption. The latter usually appeared first about the genitals and rapidly invaded the whole surface of the body. It was not specially irritating. There were usually some headache and malaise at the onset, but they were not severe and soon passed off and the appetite was not affected. The constitutional disturbances, indeed, appeared to be very slight. Desquamation always began within two or three days, appearing first about the neck, the shoulders, or the face, and last upon the hands and feet. It was always profuse and on one occasion, several years ago, the nails were shed. The process was usually completed in about three weeks. During an attack he would remain at home, but never in bed. The attacks had more than once been diagnosed as scarlet fever until the full history was given and his appearance at out-patient departments was apt to cause a commotion. The patient had eight brothers and sisters, all healthy, but two cousins, he believed, suffered in a somewhat similar way but to a less extent.

The above appears to be a typical case of idiopathic erythema scarlatiniforme desquamativum. The disease is a rare one in this country, but is more common in France, and our knowledge of it is chiefly due to the French dermatologists Bercier and Brocq. Erythema scarlatiniforme desquamativum is a febrile non-infectious exanthematous affection. The tongue may be furred, but it is never a typical "strawberry" tongue, and the fauces are unaffected. Pyrexia is usually slight, but the temperature may occasionally reach 103° or 104° F. The eruption is generally universal and intense, and it closely resembles that of scarlet fever. Desquamation always sets

in early, a point of some diagnostic importance, and is usually profuse, the hair and nails being sometimes shed. The pathology is obscure. Brocq is inclined to regard the affection as a general exfoliative dermatitis. The etiology is also uncertain. Many of the cases appear to be idiopathic and to depend upon predisposition; the attacks then tend to recur. Amongst the causes that have been given are: (1) septicæmia and pyæmia; (2) specific fevers—e.g., variola and typhoid fever; (3) rheumatism, ague, chronic Bright's disease; (4) sewer gas poisoning (Crocker); and (5) drug manifestations. The disease is to be distinguished from scarlet fever by the absence of throat symptoms, by the disproportion between the intensity of the eruption and the amount of pyrexia, by the absence of the "circum-oral ring," and by the early onset of desquamation. When there is a history of recurrent attacks, as in the present case, the diagnosis should be easy. The prognosis in idiopathic cases is favourable. In other cases it will depend upon the associated cause. The treatment must be on general principles, but is unsatisfactory. Arsenic is to be avoided.

Burton-on-Trent.

NEUTRAL RED AS A MEANS OF DETECTING THE PRESENCE OF THE BACILLUS COLI COMMUNIS IN WATER-SUPPLIES.

BY WILLIAM HUNTER, M.B., C.M. ABERD.,
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(From the Bacteriological Laboratory, London Hospital.)

QUITE recently I showed[1] that the use of neutral red as suggested by Rothberger afforded a reliable method of distinguishing the bacillus coli communis from the bacillus typhosus, and further, that it was possible to diagnose by means of this method with certainty the presence of the bacillus coli communis in the majority of fluids within from 12 to 24 hours. At my suggestion Dr. Makgill has made some experiments with the object of finding whether this reaction affords a means of detecting the bacillus coli communis in water-supplies and of estimating thereby the number of bacilli present. The following is a summary of the results obtained.

Media containing neutral red form an extremely delicate test for the presence of the bacillus coli communis. This is most marked in the case of peptone bouillon in which the presence of one or two bacilli will produce a reaction within 24 hours if other micro-organisms are excluded. In water containing the ordinary varieties of aquatic micro-organisms the reaction is delayed unless comparatively large numbers of the bacillus coli communis are present. Thus, if a cubic centimetre of unsterilised tap-water, containing from 10 to 20 bacilli coli per cubic centimetre, were mixed with the neutral red bouillon, a reaction would be present in 24 hours, but if the bacilli numbered only from three to four per cubic centimetre their presence might not be shown until the second day had been completed. By noting such differences in time as varying amounts of the water to be examined require, a fairly accurate idea of the proportions of the bacillus coli present can be gained. By making shake cultures with one or two cubic centimetres of water in neutral red glucose agar, and incubating at 37° C. for two or three days, the bacillus coli can be detected and can be readily isolated when present in extremely small numbers. The reaction in broth has so far proved to be specific. In glucose agar, however—i.e., under anaerobic conditions—the bacillus tetani and the bacillus maligni œdematis produce a reaction similar to that of the bacillus coli communis. Notwithstanding this fact the value of the reaction in regard to the presence of the bacillus coli communis in water-supplies is scarcely affected. Dr. Makgill intends to publish soon the results of his experiments more in detail.

London Hospital, E.

A NOTE ON THE CONCURRENCE OF MEASLES AND DIPHTHERIA.

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ONE or two cases of the somewhat unusual combination of measles and diphtheria having been recently published in THE LANCET the notes of the following case which came into my hands in 1895 at St. Bartholomew's Hospital may interest some of your readers.

The patient, a child, aged 13 months, was admitted into the hospital for laryngeal obstruction. She was quite well till a week before, when she developed a cough. This continued till the day of admission when it became croupy and the breathing was noisy. On the day before there were a little discharge from the nose and redness of the eyes. There was no history of exposure to the infection of diphtheria. Two children in the house where the patient lived had had measles a fortnight before. The patient never had measles or any other illness. On admission the child was not very ill and was not cyanosed. The breathing was stridulous, but the signs of laryngeal obstruction were not very great—indeed, tracheotomy never became necessary. The respirations were 40. There was slight inspiratory recession of the lower costal cartilages and epigastrium; the sterno-mastoids and scaleni were working. The temperature was 102·6° F. and the pulse was 160, of smaller volume during inspiration than during expiration. There was no rash. General dry bronchitis existed, but there were no signs of pneumonia. There was nothing abnormal in the fauces and there was little or no enlargement of the glands at the angles of the jaw. The urine showed a thick cloud of albumin. There was very slight injection of the conjunctivæ. The diagnosis was important as I had to decide at once whether to admit the child to the diphtheria ward or not. I decided to do so. On the next morning the child had a measles rash, and the pathologist reported that diphtheria bacilli had grown from the swab. The little patient died three days after admission. Post mortem, flakes of diphtheritic membrane were found in the larynx and trachea and there was extensive broncho-pneumonia in both lungs.

The case is interesting chiefly from the point of view of diagnosis. The recognition of the diphtheria was due to the quantity of albumin in the urine and to the fact that the signs of laryngeal obstruction, although not great, were more than are generally found in the catarrh of uncomplicated measles. These mixed cases of measles and diphtheria in young children are almost always fatal, and I think Mr. W. Wyllys is to be congratulated on the favourable result in the case which he has published.[1]

Dorking.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

ST. MARY'S HOSPITAL.

A CASE OF SUBPHRENIC AND SPLENIC ABSCESS; OPERATION; RECOVERY.

(Under the care of Dr. W. B. CHEADLE and Mr. H. STANSFIELD COLLIER.)

THE etiology of sub-diaphragmatic abscesses is frequently very obscure, but it is fairly certain that in most of the cases the abscess is connected with a perforation of the stomach, duodenum, or some other portion of the bowel. Dr. Lee Dickinson in a paper read before the Pathological Society in 1895[2] referred to a case of subphrenic abscess which resulted from a duodenal ulcer. Occasionally it may follow an appendicitis, but the abscess then is generally on the left side of the body. For the notes of the case we are indebted to Dr. H. J. Van Praagh, house physician.

A domestic servant, aged 19 years, was admitted into the Alexandra Ward of St. Mary's Hospital on Oct. 20th, 1900, under the care of Dr. Cheadle, suffering from pain in the chest and shortness of breath. The patient had been quite well on the 18th, but on the evening of that date, whilst stooping at her work she was suddenly seized with

[1] THE LANCET, March 2nd, 1901, p. 613.

[1] THE LANCET, Feb. 23rd, 1901, p. 549.
[2] THE LANCET, April 6th, 1895, p. 874.

pain in the left side which gradually grew worse until she was compelled to take to her bed. On the following day she had pain between the shoulders, across the chest, and down the left side; she was feverish and perspired considerably; she did not vomit, nor did she complain of pain in the abdomen. At this time she was seen by a medical man who found that she was suffering from pleurisy and sent her to the hospital. The personal history showed that two years previously she had suffered from pain after food, with occasional vomiting, but no hæmatemesis. She had had no dyspeptic symptoms recently.

On admission the patient was dyspnœic and complained of pain in the left side, which was made worse by breathing deeply. The temperature was 102° F., the pulse was 144, and the respirations were 36. On examination there were signs of consolidation at the base of the left lung, accompanied by a considerable amount of pleurisy. There was also fluid in the left pleural cavity, the heart being displaced two finger-breadths to the right. On abdominal examination the stomach was found to be somewhat dilated; the edge of the spleen was not palpable. There was no evidence of peritonitis, nor was there anything in the physical signs to suggest the presence of a gastric ulcer. The patient had been for some time past the subject of constipation. The heart-sounds were normal and very frequent. The urine was normal.

For the first week in the hospital there was no improvement in the condition of the patient, the pulse-rate remaining high, ranging from 110 to 136, and the pyrexia increasing until on Oct. 27th it attained to 104°. The physical signs did not vary from those present at the time of the admission of the patient to the hospital, except that there seemed to be evidence of the presence of a greater quantity of fluid in the left pleural cavity. As she became much more dyspnœic paracentesis pleuræ (mid-axillary line, sixth space) was performed and 20 ounces of clear fluid were withdrawn. With the removal of the fluid the dyspnœa became less, the temperature chart showing a fall from 104° to 100°, but the physical examination of the left chest did not show any diminution in the extent of the dulness and the tubular breathing became much louder than before. The temperature now went up again, the patient's general condition becoming worse, the pyrexia being of a remittent character accompanied by profuse sweating. On Nov. 3rd, at 6 P.M. the temperature rose to 104·8° and the pulse to 150, although the signs of consolidation were becoming less marked. The patient's condition was so strongly suggestive of suppuration that an exploring needle was introduced into the position of greatest dulness, which was in the tenth space, in the posterior scapular line, and some fœtid pus was evacuated.

Mr. H. Stansfield Collier, who was called by Dr. Cheadle to see the case, decided on immediate operation. The patient was anæsthetised with chloroform and the pus having been once more located by means of an exploratory needle an incision was made along the lower border of the eighth rib and a portion of the ninth rib was resected, when on inserting a director about two ounces of very foul pus flowed out. As there was some doubt as to the site of the abscess cavity the incision was prolonged backwards for about two inches and more rib was excised. After this the pus was found to come from beneath the diaphragm, especially from a cavity in the spleen substance, the director having traversed the muscular attachments of the diaphragm. The pleural cavity was also found to contain a few ounces of clear fluid which were drawn off. A large drainage-tube was inserted and the patient was put back to bed. For some days after the operation the temperature ranged between 101° and 105° and the pulse ran constantly up to 150; the wound remained in an extremely septic condition, the walls of the cavity being lined with grey sloughs. The pus was very foul, and it was found that the diaphragm, which had been stitched up to the thoracic wall during the operation, had given way, forming a communication between the pleural and abscess cavities. It was found necessary to have a tube draining each cavity, the wound being gently washed out twice daily with weak iodine solution, after which sloughs came away and the wound commenced to granulate.

The patient's condition still remained very critical, and a highly stimulant treatment was found necessary. For the next ten days the general toxæmic symptoms showed no signs of abatement, and on the evening of Nov. 14th, after the wound had been dressed, she was seized with a sudden violent pain in the right side, causing a syncopal attack of great severity. There was a loud friction rub to be heard all over the base of the right chest; an ice-bag was applied and the friction rub disappeared in the course of ten days. There were never at any time any physical signs to suggest the presence of fluid. The patient seemed to get worse every day, excepting that she took all her nourishment exceedingly well and kept in remarkably good spirits. On the evening of Nov. 16th, she appeared to get much worse, being very dyspnœic and cyanosed. She had a rigor, the temperature at the time being 102·5°, and the pulse 190 and very small. During the night she had frequent inhalations of oxygen; champagne and brandy were given by the mouth, and strychnine was hypodermically injected. She gradually recovered from that time, having no further rigors and the toxæmic manifestations slowly retrograding. The local condition of the wound daily improved, and after several weeks of careful nursing and dieting, the temperature became normal, the pulse-rate and general condition corresponding favourably. For the last two or three weeks she had been taking ordinary food, and got up for the greater part of the day. The wound is closed except for a very small sinus, the left lung is expanding rapidly, and in the course of a few days the patient will be able to leave the hospital.

Remarks by Dr. VAN PRAAGH.—This case presents many points of exceptional interest. Splenic abscess is by no means a common condition, and it is stated to be most frequently caused by a perforation of a gastric or intestinal ulcer; in this case there was nothing either in the history, the symptoms, or the physical signs to suggest the presence of either; nor was there any local sepsis, adjacent or remote, which could have acted as an exciting cause. The diagnosis was rendered difficult in that the presence of fluid and consolidation at the base of the left chest appeared quite sufficient to account for the symptoms observed. The small size of the abscess rendered it exceedingly difficult of detection and the convalescence was much prolonged by the sloughing of the diaphragm, which caused the abscess cavity to come into direct communication with the pleural cavity. A notable point in the case was the extreme foulness of the abscess, and on account of this the cavity was irrigated with iodine solution and, I feel sure, with marked benefit. The slough separated and the cavity became much cleaner after this was done. The patient's symptoms were extremely acute after the operation, the pulse-rate especially being a great source of apprehension; it seldom went below 150 and I often counted it 180. There was also evidence of infection on the right side, but no fluid collected and the extensive friction rub disappeared within ten days. As regards the medical treatment of the case it consisted in the free use of stimulants and unremitting attention from the nurses.

I have to thank Dr. Cheadle and Mr. Collier for permission to publish this case.

BEDFORD COUNTY HOSPITAL.

TWO CASES OF SUPPURATIVE APPENDICITIS WITH SEPTICÆMIA; RECOVERY OF ONE PATIENT AFTER THE USE OF ANTI-STREPTOCOCCIC SERUM.

(Under the care of Mr. W. GIFFORD NASH.)

EACH of the following two cases illustrates well the extensive septic infection that may occur in appendicitis. In the first case a septic phlebitis occurred in some of the radicles of the mesenteric veins and the infected emboli from these gave rise to the pyæmic abscesses in the liver. In the second case the chief septic complications of the appendicitis were local abscesses. The administration of anti-streptococcic serum in this second case was followed by the recovery of the patient, but data are wanting to enable us to determine whether the serum was active in bringing about this recovery. Anti-streptococcic serum may be administered in cases of true septicæmia—that is to say, cases in which the streptococci have entered the blood-stream or in cases in which only sapræmia is present, when only the products of the organisms have been absorbed. In the latter group of cases it is very doubtful if any improvement could be looked for after the injection of anti-streptococcic serum, as the serum has no effect on the toxins. In cases of true septicæmia before we can expect any benefit from the use of the serum it should be ascertained that streptococci are present in the blood. For if the septicæmia is due to staphylococci no benefit can

be expected from the serum. The difficulty of judging the value of the serum is much increased by the fact that there are several varieties of streptococci, each of which requires a special serum. On the whole, the experience of the few years which have passed since the introduction of the serum has not led to a very high opinion as to its value, though in a few cases striking results have followed. For the elucidation of the true value of the serum we need more cases in which it has been employed after a careful bacteriological examination of the blood.

CASE 1. *Appendicitis; abscess; incision; death from hepatic abscess.*—A girl, aged 19 years, was admitted to the Bedford County Hospital on July 21st, 1900, with a history that six days previously she had eaten a large quantity of unripe gooseberries and the following day had a severe attack of abdominal pain with diarrhœa and sickness. She kept her bed for three days and then got up, but was forced by a return of pain to go back to bed. Mr. Nash was then called to see her, and finding that she had a temperature of 105° F. and appendicitis sent her into hospital. On admission she complained of pain in the abdomen and in the lower part of the back. There was tenderness on pressure over the right iliac fossa and a swelling of the size of the palm of the hand was made out by palpation. This was dull on percussion. The temperature was 104°, the tongue was very coated, and marked thirst was present. Operation was performed on July 22nd. An incision about three inches long was made over the swelling below and to the outer side of the cæcum. The peritoneum lining the iliac fossa was much thickened and through a softened spot near the apex of the cæcum an abscess was opened containing several ounces of fœtid brown pus. The appendix, which no doubt was buried in adhesions, was not seen and no prolonged search was made. The pus appeared to have burrowed between the visceral layer of the peritoneum covering the caput cæci and the muscular coat, forming a sort of pocket. The wound was irrigated with perchloride of mercury lotion and a drainage-tube was inserted and packed around with cyanide gauze. For two days after the operation there was some improvement, but on the 25th the temperature rose to 105·8°. On the 26th and 27th there were two rises from the base line to 105°, each rise being accompanied by a rigor. Large doses of quinine were given without any effect. On the 29th the wound was explored with the finger and a concretion was removed which doubtless had formed in the appendix. On the 30th, Mr. Nash being away, the case was handed over to Dr. H. Skelding. One or two rigors continued to occur daily and on August 7th the temperature reached 107°. On the 8th Dr. Skelding enlarged the wound as it was feared there might be a collection of pus unable to drain. Another concretion was found but no pus was discovered. From the 9th to the 16th the rigors continued, the temperature ranging up to 105° or 107°, and the pulse from 100 to 140. There were tenderness over the area of the liver and pain referred to the region of the right shoulder. The patient gradually became worse and died on August 18th.

Necropsy.—At the post-mortem examination the appendix was found to be surrounded by adhesions and if there had been an aperture it had now closed. The liver was found to be riddled with abscesses varying from the size of a pea to the size of a small orange. An abscess about two and a half inches in diameter was situated in the centre of the right lobe. These cavities contained green putrid offensive pus. The spleen was enlarged and contained a few small pyæmic abscesses in its substance. The mesenteric glands were enlarged, fluctuating, and easily broken down, and were found to be infiltrated with pus.

CASE 2. *Appendicitis; abscess; incision; use of anti-streptococcic serum; recovery.*—A girl, aged 17 years, was seized with colicky pains in the abdomen on Sept. 14th, 1900. This was accompanied by diarrhœa and vomiting. Four days later the pain was localised to the right iliac fossa. During this time she had all the signs of pyrexia. Mr. Nash saw her and sent her into hospital. On admission on Sept. 21st, 1900, her temperature was 102° F., she had general abdominal pain, with a tender lump in the right iliac fossa. Mr. Nash on the day after admission made a three-inch incision to the outer side of McBurney's point over the swelling and opened up a localised circumscribed abscess which discharged about a pint of dark yellow offensive pus; a counter opening was made at the outer border of the erector spinæ muscle and a drainage-tube was inserted, connecting it with the first incision; another tube was put into the anterior wound; a fæcal concretion of about the size of a hazel-nut was removed. The patient's condition improved after the operation, the wounds and cavity were syringed out twice daily with sanitas solution, and until the seventh day after the operation the temperature did not rise above 100°. After that daily rises to 102° were common. On Oct. 11th Mr. Nash explored the wound under ether. There was no retention of pus in the abscess cavity. As there was tenderness on pressing over the ascending colon in the loin an incision was made exposing the colon and kidney, but no pus was found. This wound closed at once superficially, but pus formed in its depths and had to be evacuated later. Mr. Nash then thought that anti-streptococcic serum should be tried and 10 cubic centimetres of Burroughs and Wellcome's serum were injected twice daily. This did not actually lower the temperature at the time, but an extra secretion of pus occurred. The anterior and lumbar wounds for some time previously having looked dry and unhealthy were discharging very little, and on some days no, pus. An examination of the blood on this date showed an excess of leucocytes. 20 cubic centimetres of anti-streptococcic serum were given daily from the day after the second operation for six days. The temperature fell to nearer the base line and did not rise above 100° until 12 days later, when it rose to 102°. On this day fluctuation was made out in the line of the lumbar incision which was closed. This was opened by a probe and dark foul-smelling pus was discharged. A tube was inserted. This pocket of pus did not communicate with the other openings. Her temperature then fell to 99° and did not rise above this until 11 days later, when it went up to 101·5°; at this time a fluctuating area was discovered above, and internal to, the other lumbar incision and near the middle line of the back, the pus having burrowed upwards. This was opened and found to be connected with the cavity opened last by a very narrow sinus; it contained pus similar to that found at the last exploration. After this the patient improved steadily and her temperature did not rise above 99°. During the illness brandy, quinine, and nutrients were given freely, and on Jan. 12th, 1901, she was discharged well after the wounds had healed.

Remarks by Mr. NASH.—In THE LANCET of March 24th, 1900, p. 852, was published a case of mine in which death occurred from hepatic abscess due to appendicitis. In that case the suppuration in the liver was due to direct infection from pus tracking up behind the ascending colon. In the case now recorded the infection was probably carried by the portal vein. In the second case, although very free drainage was provided, septicæmia occurred. It is impossible to prove that the anti-streptococcic serum did any good, but my opinion is that without it the patient would have died. In neither case was any attempt made to remove the appendix. It is doubtful whether, if we had done so, the septicæmia would have been averted, as in the first case at the post-mortem examination the appendix had so far recovered that the site of the perforation was not found, showing that there could not have been any sloughing.

Medical Societies.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—A clinical meeting of this society was held on March 27th, Dr. Gordon Black, the President, being in the chair.—Dr. B. J. Hellier showed a patient on whom he had performed Conservative Cæsarean Section in November, 1900;[1] partial salpingectomy was performed at the same time. The patient was in excellent health. Menstruation was quite normal and there was no dysmenorrhœa. The child had thriven very well.—Mr. B. G. A. Moynihan showed a series of Stomach Operations: (1) Gastroplication performed three and a half years ago; (2) Gastro-gastrostomy and Gastroplasty for hour-glass stomach; (3) Pyloroplasty for pyloric stenosis; (4) Gastro-enterostomy for simple and malignant disease; and (5) Gastrostomy.—Dr. T. Browne Hearder showed a married woman, aged 35 years, suffering from Raynaud's Disease—the stage of local asphyxia. The duration had been for three months. There were no cardiac disease, no hæmoglobinuria, and no enlargement of the thyroid. She was

[1] Brit. Med. Jour., Jan. 5th, 1901.

improving under administrations of suprarenal tabloids.—Dr. E. Ward showed: (1) Hemithyroidectomy, rapid shrinking of the remaining half of the thyroid gland; (2) Gastro-enterostomy, skiagram showing Murphy's button at the cardiac end of the stomach; and (3) Tendon Lengthening, partial relapse.—Dr. C. M. Chadwick showed: (1) Disseminating Sclerosis without Nystagmus; and (2) Paralysis Agitans with an Interesting History of Commencement.—Mr. W. H. Brown showed: (1) An Endosteal Tumour of the Os Frontis; (2) a Vesical Calculus from a boy, suprapubic lithotomy; (3) Plastic Operation for Ectopia Vesicæ; and (4) a Cephalic Meningocele.—Mr. Herbert J. Robson showed a case of Fracture of the Lower Jaw in an Edentulous Subject. The patient was 46 years of age. The fracture was at the junction of the left inner third with the outer two-thirds. The cause was direct violence. The patient was seen with Mr. Littlewood Young who made splints out of the artificial plates which were locked together, holes being made in the front and the sides for feeding and syringing purposes. Perfect union occurred at the end of four weeks.—Mr. A. L. Whitehead showed (1) a case from which a Rodent Ulcer involving half the lower eyelid had been removed 12 months previously, and in which a plastic operation had been performed for the restoration of the lid; (2) a case of Nævus of the Upper and Lower Eyelids in which repeated electrolysis having failed to effect a cure complete excision was performed with no subsequent deformity; (3) a case of Albuminuric Neuro-Retinitis; and (4) a case of Partial Detachment of the Retina following a localised cyclitis.—Dr. T. Wardrop Griffith showed: 1. A characteristic case of Acromegaly in a woman who had been under observation about seven years. 2. A woman, aged 32 years, who had been the subject of Laryngeal Fistula, the result of tertiary syphilitic changes. The fistula passed through the lower part of the thyroid cartilage, and there was extensive ulceration of the mucous membrane below the true vocal cords. The fistula had healed, and the ulceration was clearing up under iodide of potassium. 3. A young man, aged 19 years, who for upwards of two years had been the subject of Carpopedal Contractions of the "tetany" type. These had varied very much in severity but during the whole time the patient presented the facial phenomenon usually known as Chvostek's symptom.—Mr. Lawford Knaggs showed a patient nine months after Double Vasectomy for Prostatic Enlargement and Retention.—Mr. Mayo Robson and Mr. Lawford Knaggs showed a man, aged 84 years, who had been admitted to hospital in October with Prostatic Retention, and catheterism becoming impossible suprapubic cystotomy was performed and the prostate was felt to project into the bladder. For some time he was very feeble and in December double vasectomy was performed under cocaine. He was now in very good condition and was able to pass urine by the urethra every two hours. He had been readmitted for another attack of retention induced by cold, but this had been completely relieved by a hot bath.—Dr. E. F. Trevelyan showed: 1. Two cases of Chronic Chorea, one in a girl, aged 20 years, and the other in a man, aged 50 years. The disease had lasted 14 and 20 years respectively. The movements were of the jerking purposeless type and were especially marked in the girl. There were no cardiac murmur in either case and no history of rheumatism. 2. A case of Graves's Disease in a man, aged 35 years, who had been under observation for seven years. His present condition was much the same now as it was then. The exophthalmos was more marked on the right side. 3. A woman, aged 36 years, with Mitral Stenosis, who had recovered from a characteristic embolic hemiplegia. There was only a slight clumsiness in some of the fine movements of the fingers remaining. 4. Two cases of Cutaneous Syphilis, one with an extensive rupial eruption which improved rapidly under mercurial inunction.

HUNTERIAN SOCIETY.—A meeting of this society was held on March 27th, Dr. J. Dundas Grant, the President, being in the chair.—Dr. W. H. Kelson read a paper on Some Affections of the Four Tonsils, touching chiefly on points in regard to which errors of diagnosis and treatment were common. Mycosis, herpes, and syphilis of the tonsils and its three stages were discussed, and the supra-tonsillar fossa with its diseases was described, with special reference to the work of Dr. D. R. Paterson. The various operations for reduction in size or removal of the faucial and post-nasal tonsils were reviewed and criticised, and the best methods of dealing with hæmorrhage and other complications were referred to. It was shown that hard substances were present in the tonsils, chiefly under three heads: (1) foreign bodies, (2) hardened, inspissated masses of secretion known as calculi, and (3) cartilaginous or bony nodules, thought by some to be vestigial remains derived from the second branchial arch. Malignant disease was touched upon and the great importance of its early recognition was shown. Affections of the lingual tonsil and the different views held as to the symptoms that might be thereby produced were described. The diseases of the four tonsils were finally considered collectively and comparatively as regards age and sex—also the likelihood of these acting as centres or points of origin for tuberculous infection, and their close relationship to rheumatism, gout, septic infection, and the fevers.—Dr. Fortescue Fox suggested that the occurrence of acute tonsillitis at the beginning of acute rheumatism might indicate the point of admission of the infective agent. He pointed out the infrequent association between gout and chronic follicular tonsillitis.—Mr. John Adams referred to the difficulty of diagnosis of syphilides on the tonsils alone. He had never seen a primary sore upon the tonsils and only one sarcoma of the tonsils.—Mr. Francis Humphreys remarked upon a possible causal association between appendicitis and tonsillitis; these often occurred together. He referred to some cases of apparently commencing rheumatic fever that had been cut short by applications to the tonsils.—Dr. W. J. McC. Ettles said that he had found the application of sulphurous acid and glycerine effective in the treatment of pharyngeal mycosis and salicylate of soda in acute tonsillitis.—Dr. Carson referred to the occasional existence of a bleeding point high up in the tonsil in cases of obstinate bleeding from the throat. Persistent bleeding after removal of tonsils never occurred if the patient was allowed to rest after the operation.—The President said that it was very often best to neglect pharyngo-mycosis as a disease of little consequence and tedious to treat. He referred to cases of great pain in the throat with only slight morbid appearances in influenza. A mixture of 10 per cent menthol, 10 per cent. guaiacol, and 80 per cent. olive oil was an effective application in tonsillitis. Tonsils were like open wounds so far as infection went; nurses sometimes became infected from the feeding-bottles of syphilitic children. An enlarged tonsil sometimes blocked up the entrance to the supra-tonsillar fossa. Removal of the pharyngeal tonsil sometimes should be carried out through the anterior nares. Enlargement of the lingual tonsil sometimes caused great distress when it touched the epiglottis. In bleeding after tonsillotomy some recommended lying down, some sitting up.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—A meeting of the above society was held at 20, Hanover-square, London, W., on March 27th, Dr. A. J. Harrison, the President, being in the chair, when the following cases were shown. Dr. William T. Freeman showed a Mottled Erythema of the Legs resembling "erythema ab igne" but with no history of exposure to heat.—Dr. P. S. Abraham brought forward (1) a Malay who had been supposed to be the subject of Elephantiasis Græcorum. The man had several cicatrices on the thighs, but these had possibly resulted from an attack of plague from which he had suffered. (2) A girl of about 12 years of age, with an Exuberant Congenital Linear Papillomatous Growth extending from the chin in the median line of the neck to below the thyroid body. With regard to the first of the two cases Dr. Abraham thought that the diagnosis must remain indefinite.—Dr. Alfred Eddowes showed a case of Lupus Erythematosus beginning in the follicles.—Mr. Arthur Shillitoe brought forward a man of middle age suffering from an extensive Pustular Dermatitis of the Legs and Thighs.—The President was inclined to think that its origin was syphilitic.—Several members considered that the use of strong ointments, with which the man had been treating himself, had aggravated an initial eczema into the formidable folliculitis now present.—Dr. J. H. Stowers advised the use of sedative lotions and in particular the avoidance of any greasy applications.—Mr. George Pernet showed (for Dr. Radcliffe Crocker) (1) a boy, aged four years, with an acute attack, dating from a fortnight previously, of Prurigo of Hebra (Dr. Crocker spoke in support of this diagnosis and considered that the alternative, urticaria papulosa, was negatived by the distribution and type of the lesions); and (2) a young woman with a large Keloid of the Arm which had benefited under continued injections with thiosinamine.—Dr. J. Herbert Stowers brought forward a woman suffering from Bazin's Disease of unusual distribution.—Dr. Graham Little showed a case of Chronic Acne Scrofulosorum

in a child, aged 12 years. Giant cells but no tubercle bacilli had been found in sections of an excised pustule.

KIDDERMINSTER MEDICAL SOCIETY.—A meeting of this society was held at the Kidderminster Infirmary on March 29th, Mr. J. Lionel Stretton, the President, being in the chair.—The secretary announced that as a result of a conference between a sub-committee of the society and a deputation from the Stourport Medical Association the association had amended its rules so that in future: (1) the association would confine its membership solely to the *bonâ-fide* wage-earning classes; (2) canvassing for members would be prohibited; and (3) the capital would not exceed £100. In consideration of these amendments the disabilities which had been imposed upon their medical officer were removed.[1]—The President showed (1) a large Cyst of the size of a bantam's egg removed from the verge of the anus of a man, aged 48 years; and (2) an Appendix Cæci removed from a woman, aged 25 years. She was seized with acute symptoms on a Friday night after a hearty meal. The medical attendant was called in on the Sunday, when he found that the patient was suffering from appendicitis with some localised peritonitis, and after consultation it was decided to open the abdomen. This was done by the usual incision over the appendix; about a pint of milky pus and some fæcal matter escaped. A large perforation was found near the root of the appendix from which fæcal matter was flowing freely; the tip, which was fully six inches away and was also perforated, was fixed posteriorly. It was ligatured and removed and the abdomen was swabbed out with sterilised gauze, a strip being left in, and the wound was closed with silkworm gut sutures. On the following day the pulse was 98 and the temperature was normal.—The President remarked on the great length of the appendix, the fact that there were two perforations, and the remarkable recovery in spite of the large amount of peritonitis and constitutional disturbance. He insisted on the importance of dry swabbing as opposed to flushing.—Dr. Evans read notes of a case of Strangulated Hernia upon which he had operated.

CARDIFF MEDICAL SOCIETY.—The ordinary monthly meeting of this society was held on March 1st, Dr. E. Walford, the President, being in the chair.—The minutes of the last two meetings were read and confirmed.—Dr. W. Mitchell Stevens sent for the acceptance of the society a Ross's Eclipse Microscope which had been purchased through the subscriptions of several members and the heartiest thanks of the society were given to Dr. Stevens.—The President read a letter from Mr. Edmund Owen cordially accepting the committee's invitation to give the annual address in June.—Dr. Herbert G. G. Cook showed a specimen of a Tumour of the Breast removed six days previously. The history of the case was one of from eight to nine years' duration with rapid increase of growth latterly. The diagnosis lay between sarcoma, carcinoma, and tubercle. Microscopical examination proved it to be carcinomatous.—Mr. William Sheen showed an Arm amputated for Recurrent Sarcoma. A mass of infected axillary glands were also removed and the axillary artery was compressed through this wound while the arm was amputated.—Mr. J. Lynn Thomas related his experiences with the Welsh Hospital in South Africa, illustrating his remarks by lantern-slides of Springfontein, Bloemfontein, and Pretoria. Mr. Thomas also showed slides of the different forms of missiles used in the campaign and gave his general impressions of the surgery of the war.—The President expressed the thanks of the society to Mr. Thomas for his communication.

ROCHDALE AND DISTRICT MEDICAL SOCIETY.—At a meeting of this society on April 4th, Dr. E. S. Yonge (Manchester) gave a demonstration on the Methods of Examining the Larynx, Trachea, and Œsophagus in Adults and Children. Useful hints were given as regards the use of the laryngoscope in difficult cases and exceptional methods were referred to. A large number of instruments were shown and their use was demonstrated on patients.—In replying to a vote of thanks Dr. Yonge, in response to a suggestion, made some remarks on the Diagnosis of Post-nasal Adenoids.

[1] See THE LANCET, April 6th, p. 1032.

Reviews and Notices of Books.

Student's Edition: a Practical Treatise of Materia Medica and Therapeutics, with special reference to the Clinical Application of Drugs. By JOHN V. SHOEMAKER, M.D., LL.D., Professor of Materia Medica, Pharmacology, and Therapeutics in the Medico-Chirurgical College of Philadelphia. Fifth edition. Philadelphia: F. A. Davis Company. Pp. vii.–770. Extra cloth, $4.00 net.

THE present edition marks a curious result of the rapid growth of new remedies. The author has decided to divide his well-known work into two independent issues, adapted respectively to the requirements of students and physicians. In this volume, which is intended for students, attention is limited to the drugs and preparations which are official in the Pharmacopœias of the United States and Great Britain. Whether the forthcoming Physicians' Edition will consist solely of unofficial remedies or will include such remedies in addition to the material in the present volume is not yet disclosed. The Students' Edition will be found sufficiently comprehensive for ordinary purposes and it contains many references to unofficial drugs which are "chemical modifications" of those within the pale.

The book is divided into two parts. In the first the author deals briefly with general considerations concerning remedies and systems of treatment, with prescription-writing and formulæ, and with poisons and antidotes, together with other cognate matters. The second part consists of a single section, nearly 650 pages in length, relating to official remedies or drugs contained in the United States and British Pharmacopœias. English readers will find the first part of little service as, for example, in the pharmaceutical classes of remedies, attention is concentrated on the United States Pharmacopœia and the result is somewhat bewildering. Thus 88 fluid extracts are enumerated, whilst the list of pills falls far short of that in the British Pharmacopœia. On the other hand, all that relates to prescription-writing and formulæ may be studied with pleasure and profit, and under this heading will be found valuable lists of drugs which form explosive compounds, of those forming unsightly and undesirable mixtures, and of those which are physiologically incompatible.

With regard to the second part it may be doubted whether the alphabetical order is best adapted for a student's text-book. It facilitates reference, but it appears to suggest that the volume is not to be studied as a whole. We should have preferred to have had the drugs grouped according to their leading therapeutic actions which would favour comparison and selection, leaving the index to save the time and trouble of the more advanced student who desires to refresh his memory rapidly.

The author has evidently taken great pains with the revision of this edition as he includes references to numerous recent contributions to the literature of official remedies. Each drug has separate sections relating to its definition, its preparations, its pharmacology, its toxicology (with appropriate antidotes), and its therapeutic actions, with suggestions as to eligible forms of administration. The term "pharmacology," although defined in the earlier pages, is used in several different senses; sometimes (see p. 77) it includes only the physical and chemical properties, and physiological action is dealt with in a separate section, while on a previous page (see p. 75) under the same heading there are descriptions of physiological actions and of toxic effects, while the term "toxicology" only embraces the treatment of the latter. For the use of senior students such occasional lapses are perhaps of small moment when compared with the amount of information included under the name of each drug. The numerous prescriptions on almost every page

will be found suggestive and useful. As a whole, however, notwithstanding its title, this edition appears likely to be more serviceable as a book of reference for the busy practitioner than as a text-book for students. Although everyone derives benefit from consulting a dictionary few would be bold enough to attempt to study it page by page.

The City of London Directory for 1901. Including a Streets Guide, Alphabetical Directory, Trades Guide, Livery Companies Guide, List of Liverymen Voters, a Biographical Directory, Corporation Directory, Public Companies Directory, and also a Coloured Map of the City of London. The thirty-first annual edition. London: W. H. & L. Collingridge. Pp. 1222. Price 12*s.* 6*d.*

THE first edition of the "City of London Directory" published in the twentieth century and in the first year of the reign of His Most Gracious Majesty King Edward VII. is the thirty-first annual issue of this publication. The edition contains much exclusive information in regard to the corporation, the livery companies, the charities, the clubs, the officers and administrative departments, the schools, and the commercial circles of the City of London. The official section contains a complete list of the aldermen and members of the Court of Common Council, with full details of the officials connected with the various executive bodies of the City. A list of the mayors, aldermen, and councillors of the new borough councils is a feature of the work. Lists are given of the members of the Court of Lieutenancy, the London County Council, the London School Board, and the City of London Union. Particulars of the city churches appear, together with a list of the clergy and a statement as to the value of their benefices. The educational advantages and opportunities which the city schools afford to all classes are described, and particulars of all these schools are given with reliable information as to fees and scholarships and numerous historical details. The streets section has been carefully revised, all the occupiers whose names appear having been canvassed to ensure accuracy. The alphabetical list contains the name, address, and trade or profession of every person, and, as far as can be ascertained, of each individual member of firms in the City of London. The names are classified again as a trades guide under the various trades or professions. The street improvements of the year are indicated in a large coloured map, and include all recent alterations. The Central London Railway is shown as a line in use, and the Great Northern and City Railway as a line in course of construction. The boundaries of the wards and parishes are accurately marked, the former being clearly indicated in colour; and ready reference is facilitated to every street and turning in "the one square mile."

The directory is a valuable book of reference which finds a place as a matter of course on the shelves of most business men residing in, or closely connected with, the City of London.

Medico-Surgical Aspects of the Spanish-American War. By Dr. NICHOLAS SENN, Chief Surgeon, U.S. Volunteers. Chicago: American Medical Association Press. 1900. Pp. 360.

THIS book is apparently a collection of papers and letters contributed to various journals, and this being so, it is not written upon any definitely coherent plan. However, it gives a series of very striking pictures of the work of an army surgeon in war-time. There is a passage on page 10 which reads oddly in the light of present events and may be paralleled by our own case in South Africa. "The hero of Manilla has planted the Stars and Stripes, the emblem of liberty and equality, on the shores of the distant Philippine Islands; there it will remain until the unhappy inhabitants breathe the bracing air of independence." The inhabitants at present, however, seem to be as incredulous of the blessings of the rule of the Great Republic as are the Boers of the blessings of British rule. One of the most interesting sections in the book is that entitled, "Recent Experiences in Military Surgery after the Battle of Santiago." With regard to wounds inflicted by the small-calibre jacketed bullet it was noticed that where the wounds were infected it was more often at the wound of exit than at that of entry, a fact which Dr. Senn explains by the larger size of the wound and the greater laceration of the tissues. Dr. Senn lays stress upon what has been noticed over and over again in South Africa—that more attention must be paid to the value of the first dressing, and he recommends that in every first-dressing package a packet of antiseptic powder should be supplied. He prefers a combination of boric and salicylic acids in the proportion of four to one. The use of the x rays was found to be very valuable in the location of projectiles. Penetrating gunshot wounds of the abdomen healed in many cases without surgical interference and Dr. Senn quotes one remarkable instance. A soldier received an injury while lying in the prone position, the bullet entering the left infra-spinous fossa and passing downwards and inwards until it lodged under the skin in the median line, two inches above the umbilicus. The patient had a good deal of hæmoptysis for two days. An abscess formed in the abdominal wall, which was opened 18 days after the injury and the bullet was removed. After this rapid improvement occurred.

The section dealing with "The Qualifications and Duties of the Military Surgeon" is excellent reading. We have perused it with both pleasure and profit, and we expect those of our readers who are interested in the subject—and who is not at the present time?—will do the same. The chapter is, we think, sensible, practical, and full of good points. Lieutenant-Colonel Nicholas Senn, as chief surgeon of the United States Volunteers and chief of the operating staff with the army in the field, had good opportunities for seeing the work done by the surgeons of the regular army of the United States and those of the National Guard. War is the most searching test of field medical systems and methods for these speedily arrange themselves on the sides of right and wrong, workable and unworkable. It is because this fact, although only just touched upon by the author, is nevertheless recognised in a wholesome and straightforward spirit that we read what he has to say with gratification.

LIBRARY TABLE.

The Thompson-Yates Laboratories Reports. Edited by RUBERT BOYCE and C. S. SHERRINGTON. Vol. III., Part II. Liverpool: At the University Press. 1901. Pp. 266. Price 5*s.* 6*d.* net.—This book is beautifully got up in the accustomed style of the Liverpool University Press. Nearly half the book is taken up by the third memoir of the Liverpool School of Tropical Medicine, being Part I. of the Malaria Expedition to Nigeria. Among the other papers are an obituary notice of the late Dr. Walter Myers, a paper by Dr. S. R. Christophers on the Prevention of Malaria in Tropical Africa, and one on the Life-history of the Parasites of Malaria, by Major Ronald Ross and Dr. R. Fielding-Ould.

Encyklopädie der Gesammten Chirurgie. (*Encyclopædia of General Surgery.*) Edited by Professor THEODOR KOCHER and Dr. F. DE QUERVAIN. Leipzig: F. C. W. Vogel. 1901. Part I. Aachen—Angioma. Large 8vo. Pp. 48. Price 2 marks.—This surgical dictionary, alphabetically arranged, and well printed in double columns in a large page, is expected to be completed in 25 parts at 2 marks each. The list of contributors is a long one, containing many eminent names, and to judge from Part I., which terminates with Angioma, the work promises well. Some of the principal articles, each of about three pages, are Abscess, by Dr.

Buchbinder of Leipzig; Achselhöhle, by Professor Zuckerkandl of Vienna and Dr. Bardenheuer of Cologne; Adnexerkrankungen, by Dr. H. W. Freund of Strassburg; Aether, by Dr. Dumont of Bern; Alkohol, by Dr. F. de Quervain of La Chaux-de-Fonds, one of the editors; and Amputation, by Dr. Dumont. Several illustrations are inserted in the text.

Another English Woman's Love Letters. By BARRY PAIN. London: T. Fisher Unwin. 1901. Pp. 142. Price 2*s.*—Most persons have by this time read the much-talked-about "Love Letters of an English Woman," that clever picture of a morbid, introspective, and much-to-be-pitied woman who gave herself heart and soul to an insufferable "bounder" who posed as an honourable gentleman and sent the woman who loved him "his kind regards" when she lay on her death-bed. We owe a great debt of gratitude to the author, whoever he be, seeing that he has been the cause of Mr. Barry Pain giving to the world the delightful little book now before us. Despite the east winds, a rising income-tax, and the census, the other Englishwoman has given us cause for many a laugh. The therapeutics of laughter are well known and we recommend our readers first to peruse the book themselves and then to tell their patients to do the same. The Italian portion of the letters is inimitable.

The Clincher Guide Cycling Routes of England and Wales. With a Map. By T. A. EDGE. London: Walter Scott, Limited. 1901. Price 1*s.*—In this little book the roads of England and Wales are tabulated in a series of routes and all towns are indexed. The mileage, including a description of the surface and the contour of the roads, is also indicated by means of easily remembered letters and symbols. On the map numbers are placed which correspond with the various series of routes and by the aid of the ample index it is a simple matter for a cyclist to trace the best way to take between any two given towns. We are not aware of any book which gives so much useful information in a form so easy for reference and so cheap.

JOURNALS.

Edinburgh Medical Journal.—The first of the original communications in the April number is an article on Light and Colour Perception, by Dr. F. W. Edridge-Green, an outline of whose views on the subject will be found in THE LANCET of May 26th, 1900 (p. 1511), August 4th, 1900 (p. 322), and in another column of the present number (p. 1077). He considers that the solar spectrum may be divided into six bands, each of which is monochromatic so far as visual perception is concerned, because no person looking at such an isolated band could tell which edge of it was directed either to the red or to the blue end of the spectrum. It is of course well known that the wave lengths in every part of the spectrum undergo progressive alteration, but persons with ordinary normal vision can recognise only six distinct colours—namely, red, orange, yellow, green, blue, and violet. Colour-blindness, he says, is due to the widening of one or more of these bands, so that as the length of the natural spectrum remains the same the number of the bands becomes reduced. In the first degree of colour-blindness five instead of six colours are seen, orange having disappeared. In the next degree only four colours are seen, blue having disappeared. After blue it is yellow which disappears. In the next degree of colour-blindness only two colours are seen, green having disappeared. Those who see only two colours in the spectrum confuse red, orange, yellow, and green on the one hand and blue-green, blue, and violet on the other. He considers that colour-blindness should be tested, not by matching different colours, such as coloured wools, but by naming the colours. Two papers are concluded in this number—namely, one on the Form of Crystals, by Dr. J. Bell Pettigrew, and one on Pernicious Anæmia, by Dr. Vincent Dickinson.

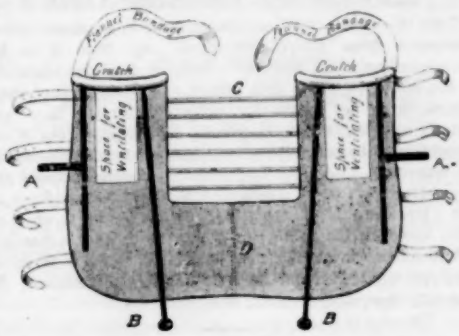
Caledonian Medical Journal.—The April number opens with a Gaelic elegy on the death of Queen Victoria. In the editorial paragraphs it is announced that the Gunning Celtic Prizes have occasioned a considerable correspondence on the part of inquirers asking information from the secretary, Dr. S. R. Macphail of Rowditch, Derby. Particulars of these prizes have already appeared in THE LANCET of Dec. 8th (p. 1658) and Dec. 22nd (p. 1825), 1900, and Jan. 19th (p. 191), 1901. The frontispiece shows the main block of the sanatorium for tuberculosis at Nordrach-on-Dee, and the accompanying description states that there are many miles of specially laid out walks in the grounds of the sanatorium and in the surrounding forests. Dr. Alastair MacGregor of Shepley, Huddersfield, in bringing to a close his series of articles on "second sight," gives details of various instances of premonition of death by spectral apparitions and unaccountable noises, and Sir Arthur Mitchell of Edinburgh writes quoting from Aubrey's "Miscellanies" a passage to the effect that Harvey, the discoverer of the circulation of the blood, was saved from drowning in the Straits of Dover through the agency of a warning vision seen by the governor of Dover in a dream.

Mercy and Truth.—In the April number Dr. Martyn Clark writes on baptisms at Amritsar in the Punjab, and Dr. Howard Cook contributes an illustrated description of a visit to Toro in East Africa. It is announced that the Archbishop of Canterbury will preside at the annual meeting of the Medical Mission Auxiliary in St. James's Hall on April 30th.

New Inventions.

JACKET FOR SPINAL CARIES AND ANGULAR CURVATURE.

I HAVE had this jacket made for the treatment of a case of angular curvature of the spine coming on in adult life and involving the eighth and ninth dorsal vertebræ. After several months' confinement to his room the patient recovered so far that with the help of this jacket he was able to resume his occupation. The illustration shows the jacket as it would



appear if flattened out and looked at from behind. The shaded part is of leather—stout sole leather dipped for a minute or two in boiling water and moulded to the body by firm bandaging. The four thick black lines represent uprights made of bamboo or other strong light wood and fastened to the leather. The hinder pair (B B) extend below the leather and rest on the chair when the wearer sits

upright, thus giving a real support to the crutch in the axilla. To the front pair are attached two arm-rests (A A). These are of steel encased in thick leather and are when thus covered with leather about six inches long and an inch and a half wide. They revolve horizontally round a bit of steel attached to the bamboo, and are so made that they can be taken off easily. The jacket is in halves, jointed below over the sacrum with a leather hinge (D); above there is an open space (C) at the upper part of the back, across which loops of cane are tightly drawn to support the back. In front the jacket reaches barely to the anterior superior iliac spine on either side, and is held in place by leather straps across the abdomen. It should be well rounded off in front, or it will give pain on flexure of the thigh; and laterally it should reach to the great trochanters. There is a window on each side for coolness. A strap is carried across the front of the chest, not tightly for chest fixation, but to prevent the arms slipping forward over the front of the axillary crutches. If drawn tight this strap interferes with the breathing. I secure chest fixation and close adjustment of the upper part of the jacket to the body by carrying a loop of flannel bandage across each shoulder from the upper corner of the window of one side behind to that of the other side in front. This also checks the tendency of the jacket to slew round to the right with the movements of the body. The axillary crutch is made by bending over the edge of the leather on itself when moulding it to the body. On the top of this I fasten a bit of pneumatic bicycle tyre filled with water and tied with twine at both ends. This gives great comfort, for the support of this crutch is very real, and chafing is apt to result. The crutch must not be too thick or it will press against the inner side of the arm and give pain. The jacket is worn over the flannel shirt and drawers and the trousers are suspended from one of its straps. The waistcoat is slit up on either side over the anterior bamboo upright to let through the arm-rest. The arm-rest is covered and concealed by the coat-flap. Points in its favour are: (1) the arm-rests enable the weight of the upper part of the body to be swung through the shoulder from the elbows; (2) the posterior uprights resting on the seat give real support and are of special service, say, in pulling on boots or holding in a hard-mouthed pony; and (3) it is cool, cleanly, and efficient, and is easily made.

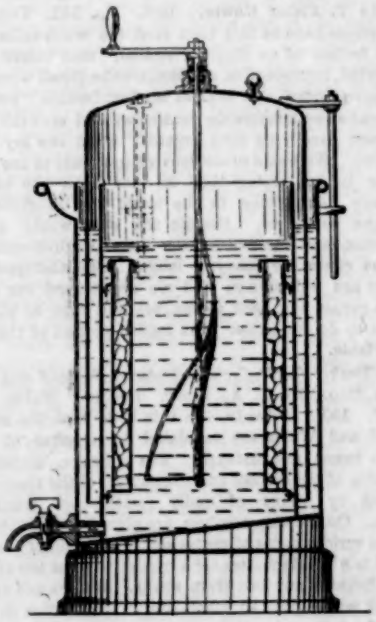
T. LAW GASKIN, M.R.C.S. Eng., L.R.C.P. Edin.
St. Michael's, Barbados, West Indies.

THE "POISONING PREVENTER" LABEL.

THIS label has a vertical column of plainly-printed figures numbered from above downwards—say, from 1 to 12, corresponding to the successive doses of medicine contained in the bottle to which it is affixed. Opposite each of these figures there are spaces for writing down the hour and minute at which a dose is given. In this way many of the possibilities of error in the administration of medicines should be removed. The label is printed in various colours and measurements to suit standard bottles; and it is fixed on the narrower side of a bottle, with its marks to coincide with those on the bottle; or it can be used on a standard bottle which has no divisions. The label, which is patented, may be obtained from Mr. C. J. Whistler Hanson, 24, Harrington-square, London, N.W.

RECEPTACLE FOR MILK OR OTHER LIQUIDS.

THE illustration represents a new receptacle for holding milk or other liquids intended for human consumption. It is adapted for use alike in hospitals and in private houses, and is so constructed that the access of dust, flies, and other sources of contamination is entirely prevented, while at the same time the withdrawal of the contents is easy and cooling by means of ice is provided for. The apparatus is made of tinned sheet iron, zinc, copper, or earthenware. The cylindrical container has a double casing, with water in the annular space between the inner and the outer wall. Inside the container there are removeable tubular vessels which can be filled with ice when required; two of these are shown in the illustration. A cylindrical bell-shaped cover dips into the



water. A stirrer passing through the closed end of the bell and turned by means of a handle outside serves to mix the contents uniformly. When admission of air is required it is filtered by passing through sterilised felt contained in an air-tap outside the closed end of the bell. The receptacle is made in sizes to hold from a quart to 100 gallons. The patentee and manufacturer is Mr. W. T. Lawson, Hill Crest, Beech Lanes, Birmingham.

HEALTH OF ST. IVES.—Mr. J. M. Nicholls, the medical officer of health of St. Ives, Cornwall, in his annual report for 1900, states that the birth-rate was equal to 31·62 per 1000, as compared with 34·62 per 1000 in 1899. The death-rate was 18·67 per 1000, as compared with 15·75 per 1000 in 1899. Seven deaths were from zymotic diseases, including four from diphtheria and two from diarrhœa. The infant mortality was at the rate of 186 deaths per 1000 births. 49 cases of infectious diseases were notified, including eight of diphtheria, 10 of typhoid fever (in all of which the patients recovered), four of continued fever, and 22 of erysipelas.

HEALTH OF SIDMOUTH.—Dr. T. H. S. Pullin, the medical officer of health of Sidmouth, Devon, in his annual report for 1900 states that during the year the birth-rate was 17 per 1000. The death-rate, if the deaths of 12 visitors to the town be included, was 15·25 per 1000; excluding the visitors it was 12·25 per 1000. The zymotic death-rate was *nil*, being the fifth consecutive year without a death from one of the zymotic diseases. Only one case of infectious disease (enteric fever) was notified during the 12 months, the disease having been contracted abroad. The previous case of enteric fever was notified one year previously, and Mr. Pullin adds that only one death from this disease has been registered in the district during the past 20 years.

THE LANCET.

LONDON: SATURDAY, APRIL 13, 1901.

The Sanitary Condition of Windsor.

WINDSOR furnishes an example of the fact that the light of public opinion is apt to beat in a fierce fashion about a throne. Since the days of the Conqueror the town has figured prominently in the annals of the nation, and there are indications that under King EDWARD VII. Windsor will not lose favour as a Royal residence. In years not long gone by many pages of THE LANCET have been devoted to a consideration of the sanitary maladministration of the Windsor Corporation, and more recently (in THE LANCET of Dec. 18th, 1900, p. 1591) we drew attention in a leading article to a report made by Dr. H. T. BULSTRODE, one of the medical inspectors of the Local Government Board, upon this same old theme. This report attracted no little attention in the lay press, and the town council of Windsor have, it appears, devoted many sittings, much time, and some abuse to its consideration. The report revealed a far from creditable state of affairs, but it is not now our intention to revert to it in this sense.

Whatever may have been the forces which have kept that report prominently before the town council—and in a case of this sort there are obviously many channels through which influence might have been exerted—it is a matter of much satisfaction to us to be able to record that the corporation have now faced the issue in a truly commendable spirit, and that they have apparently persuaded themselves that the true interests of the town of Windsor would best be served by putting their house in order. According to the *Windsor Chronicle* of March 22nd a special committee, which has for some months past been considering the answer which should be given to the Local Government Board report, have recently presented a draft of their conclusions to the corporation and a discussion which occupied some two and a half hours ensued. Some exception was taken to the fact that the introductory portion of the Government report went as far back as 1858, the council urging that the sins of the forefathers should not be visited upon the children; but Councillor BROWN PORTER disposed of this objection by the pointed remark, "There are forefathers present," implying, we gather, that all those who were of the council in 1858 have not even yet retired therefrom.

The report of the committee, as amended by the town council, shows signs of proving to be a very reasonable and healthy document. Action has been taken in respect of practically all the points raised in the inspector's report, and in the matter of the housing of the poor of Windsor it is gratifying to read that certain areas have been declared to be "unhealthy areas" within the meaning of the Housing of the Working Classes Acts. The surveyor has been instructed to prepare a scheme with a view to demolish the whole of the western side of River-street, a street which has for years figured prominently in the annals of Windsor, and to which many references will be found in our columns. Dwellings for the working-classes are to be erected on the site. Action is also apparently to be taken with respect to certain "obstructive buildings." As regards the sanitary condition of "Victoria-cottages," the dwellings which through the complaint of Mr. STONEHAM of the Berkshire County Council were instrumental in bringing about the Local Government Board inquiry, it must be a source of much satisfaction to the inhabitants to know that "the whole of the roofs and ceilings have been put into a good state of repair." The by-laws and regulations are being rigorously enforced, and such as are out of date are to be modernised. The medical officer of health has been afforded free entry to the waterworks, and samples of water from the different wells are taken under his supervision for chemical and bacteriological examination. The change which has come over the spirit of administration in Windsor is indeed as remarkable as it must be welcome. In the words of the *Windsor Chronicle*, "For the condition of previous years the apathetic burgesses were largely responsible, but recently they have aroused themselves to return men to the council possessed with a real and serious desire to administer the affairs of the town for the general welfare."

In our view, too, no small amount of the improvement is due to the vigorous action of the local press and to the persistent support which they have accorded to sanitary reformers, such as Councillor RYLAND, who, if we may judge by the local reports, has for a long time occupied a position in the council of one crying in the wilderness. The advice, too, which was given by Councillor Sir J. SOUNDY that the council "would do their best to remedy the evils of the past" was well worthy of the support which it has received. It is clear that Dr. BULSTRODE'S report had effected good both to the town council as a public body as well as to the town as a whole, and we must ourselves confess to a feeling of satisfaction that the reforms which we have for so long advocated in these pages are now in a fair way to be carried into effect.

The Lettsomian Lectures.

THE subject chosen by Dr. MITCHELL BRUCE for the Lettsomian Lectures this year was Diseases and Disorders of the Heart and Arteries in Middle and Advanced Life, and he has earned the thanks not only of the Medical Society of London but of the profession at large by selecting for consideration a matter which will interest all practitioners and by dealing with it in such a practical manner. Lectures and papers on the scientific aspect of disease are more frequent than those which deal with the more practical side, and these lectures will be welcomed accordingly as being the outcome of exceptional experience and close and careful study of the clinical material which has come before the lecturer in his private and hospital practice.

Dr. MITCHELL BRUCE'S subject will at once arrest attention, for the problem of disorders of the heart as set forth in the title of the lectures may be said to come before

the family practitioner during every hour of his work, and to present difficulties and to create a sense of responsibility or even anxiety which cannot be over-estimated. The investigation of such cases forms an interesting study, and, as the lecturer rightly points out, the answer to the many questions which arise can be given only after an analysis of a considerable number of instances of the kind in respect of their origin, their clinical character and course, and the result. We further entirely agree with him when he says, "Our attention lately has been too much confined to the pathological states of the heart and arteries and too little directed to the causes which produce them." For instance, "arterial sclerosis" is an ordinary diagnosis in everyday practice, as if it were sufficient for purposes of prognosis and treatment to have determined that the radial artery is thicker, larger, and more dense than normal, without considering the actual nature of the pathological change, whether due to strain, syphilitic, gouty, or otherwise. The term "dilatation of the heart," also, is apt to be employed as if the enlargement of the cardiac chamber or chambers was a distinct disease rather than the result of varying morbid conditions.

Before considering the influences and circumstances which disorder or damage the circulation in middle and advanced life Dr. MITCHELL BRUCE drew attention to the normal or natural state of the heart and arteries after 40 years of age, and showed that as life advances certain changes take place which must not be considered as pathological, and that the term "vascular degeneration" applied to such processes is misleading. There are, however, many forces that threaten the heart and arteries which are peculiar to that period of life, such as physical stress, nervous influences, and disturbances of metabolism, including gout. These singly or conjointly may bring about such cardio-vascular changes as may greatly affect the patient's general health and necessitate a remodelling of his mode of life. There can be no doubt that the last named (disturbances of metabolism) are by far the most potent factors concerned, at any rate amongst the middle and higher classes in this country. The period of life referred to frequently brings with it comparative relaxation from work and a disposition to substitute quiet or even passive for active exercise, and whilst the demands of growth and development in the alimentary system have greatly declined the pleasures of the table and ease generally are too often indulged in. The results are functional disorders of the liver, gout in regular or irregular forms, gravel, and the many associated disorders of the muscular, nervous, and other systems. From various causes, as Dr. MITCHELL BRUCE aptly points out, the arterial tension rises, consequently the heart-vessels and kidneys are kept under incessant strain and, like other organs working under strain in the gouty subject, they are the readiest to suffer. There are other causes which may arise to threaten the heart in this stage of life, such as syphilis, acute diseases, emphysema, and chronic Bright's disease; these are duly commented on in the lectures. Special stress was laid on the "tobacco-heart" and the heart in alcoholism. These were dwelt upon in order to bring home an important consideration which is apt to be overlooked in diagnosis and still more in treatment—namely, that whether in an ordinary senile heart or in a heart that is the seat of chronic valvular disease or in arterial degeneration something more than the pathological changes have in many instances to be regarded—usually some entirely adventitious disturbance which alone calls for treatment, such as indigestion, flatulence, worry, bronchial catarrh, or it may be free indulgence in tobacco, tea, or coffee. It will be within the experience of most practitioners to have attended patients suffering from a moderate degree of cardiac dilatation in whom the symptoms and characters of the pulse are out of proportion to the amount of disease as estimated by physical examination—in many such instances on inquiry excessive indulgence in tobacco will be admitted, and if this can be controlled general improvement will soon be manifested. Not only is this the case at the period of life alluded to by Dr. MITCHELL BRUCE, but in younger men also similar symptoms due to the same cause are met with. Many subalterns and yeomen who have been invalided home from Africa have found that former indulgence in cigarettes had rendered them less able to contend against the peculiarities of the South African climate and the excitements of a campaign than were their fellows who had been more moderate in this respect.

Dr. MITCHELL BRUCE'S remarks on prognosis and treatment will well repay careful perusal. In order to arrive at a correct understanding on these points as full and correct a diagnosis as possible is essential—a purely anatomical diagnosis is insufficient, but as far as possible the etiology of the conditions must be sought out. In order to ascertain this in addition to the onset and progress of the symptoms it will probably be necessary to inquire into the previous history of the patient from childhood upwards. We have not space to comment fully on his valuable hints as to the interpretation of cardiac murmurs and symptoms, or on the indications for treatment which he so clearly lays down. He points out that morbific influences can be more easily controlled than pathological processes can be altered, and, what is of equal or greater importance, a knowledge of the causes of disease often enables the practitioner to prevent what he could not possibly cure; therefore, in respect to treatment also etiology is all-important.

The Primate and Medical Authority.

AMONG the present forces of the country must be reckoned the Primate. Even when we do not altogether agree with him, which we are glad to think does not often occur, we listen to him with the respect due to a man of fourscore years who displays unabated energy and an ever-green interest in human progress. It is a great thing for Christianity that the head of the Anglican Church should be so strong in his physical and intellectual equipment. We all know that the Primate is a rigid abstainer and that he uses his great position in the Church and in the State for the repression, not only of drunkenness, but of the drinking of alcohol in all forms. And whether he is addressing a popular meeting at a Church Congress or that most unemotional assembly the House of Lords he shows the courage of his opinions and by his personal force does much to secure a hearing where less distinguished or less able

speakers would fail. Some may think that he would do more good by identifying himself with a less uncompromising set of opinions than those which he is known to hold, and by advocating a more practicable reform than the suppression of the trade in alcoholic drink. But it is a part of his enormous influence to be thorough.

Dr. TEMPLE made an interesting speech recently at the London Temperance Hospital in which he enunciated the principles on which he would proceed if overtaken by an illness which induced his physician to order him to take alcohol. He said that he was close upon 80 years of age and did not think that they would find many men of 80 years able to do such work as he did. Any man who achieves the age of 80 years, under conditions of health and activity, is right to congratulate himself on his vigour, but, of course, the Primate is too well informed not to know that many octogenarians as active as himself are not total abstainers. He went on to say—

"He did not profess now that if he were in the hands of a physician and he ordered alcohol he would refuse to take it. If he did not trust his physician he would go to another, but physicians now were different from what they were. If the patient now said that he was a total abstainer the physician generally accommodated himself to the position and permitted him to remain a total abstainer. ..... The medical profession did not try to stop total abstinence by force and say they could not bring people to health without alcohol."

These words should be weighed by over-zealous abstainers. They imply that in the opinion of Dr. TEMPLE a trusted physician is to be trusted to prescribe alcohol. We should have been surprised if his Grace had given the sanction of his authority to any other doctrine, and we trust that his words will serve as a lesson to those extreme teetotalers who will not allow any value to the use of alcohol and who presume in disease to think their judgment better than that of their medical man.

The Primate's words should be weighed, too, by medical men, who should apply to the prescription of alcohol the same care which they apply to the prescription of digitalis or other drugs. The habitual use of alcohol may be right or wrong, but the authority of the physician must not be invoked for it when it has been merely prescribed in an emergency of disease. There are few intelligent teetotalers who will not, like the Archbishop, accept the authority of the physician in the question of alcohol. The acceptance will be based by them on faith and medical men will best preserve and promote the true use of alcohol by studying it in all its bearings in each individual case and by prescribing it with proper limitations of time and dose. In a sense most hospitals now are temperance hospitals, for the medical staffs of all of them are alive to the objections—medical, moral, and financial—to giving alcohol to hospital cases where it is not needed. Some of this change of view may be due to the influence of the London Temperance Hospital. But more of it is due, we venture to suggest, to a truer estimate of the scientific value of alcohol, to a comprehension of the possibility of dispensing with it advantageously in many of the cases of disease which occupy hospital beds, and to a growing desire on the part of medical men to use their authority in the promotion of wiser views among the ignorant and the poor.

Annotations.

"Ne quid nimis."

HELION: £200 PER CUBIC FOOT.

No one has ever suggested that helion, the element which until recently was thought to exist in the sun but which was discovered in the gases contained in certain minerals by Professor Ramsay, would be of any practical utility. At present, moreover, it is not likely to be, for it is the costliest of all elements. The method now being pursued for capturing this element in workable quantity shows that its separation and concentration involves an enormous expense and the helion obtained costs about £200 per cubic foot. The same amount of money would at the present time purchase over one million cubic feet of coal gas. The price of helion, therefore, at present is more than a million times that of coal gas. The element occurs in the gases evolved in the hot mineral springs at Bath, and, as our own analyses have shown, it is associated with carbonic acid gas, oxygen, nitrogen, and argon. Professor Dewar is engaged in collecting these gases in large quantity and separating the constituents by means of excessively low temperatures—that is, by freezing. As we have already announced, he has been able to liquefy helion by employing liquid hydrogen as the refrigerant. Doubtless the present costly research is being undertaken, amongst other things, in order to see whether helion can be solidified. To gain this result temperature will cease to play a part, for absolute zero will have to be reached. The work of investigation is carried on under great difficulty and it is not without its dangers. The intense dismay at losing, say, five cubic feet of gas just when success is promised may be imagined. Thus the destruction of the containing vessel during the experiments would mean £1000 irretrievably gone. But the true value of research as often resides in negative as in positive results.

THE MARCH OF CLEANLINESS.

FIFTY years ago, when the Great Exhibition in Hyde Park was about to open or had lately opened, the perennial jester *Mr. Punch* waxed very satirical at the expense of our continental visitors. In his opinion their corporeal cleanliness left much to be desired, and accordingly he endeavoured to induce a remedy by means of ridicule. One of John Leech's inimitable "cuts" which saw the light about that period represented a formidable row of washstands drawn up with military regularity at the border of a public thoroughfare, each washstand, with ewers and basins all complete, being under the charge of a resplendent flunkey who, towel over arm, was inviting all and sundry to wash and to be clean. "Hold! Alfonzo," exclaims a highly bestocked and grimy foreigner as, struck with amazement, he stops short to gaze at the unwonted spectacle, "what is it then, that machine over there?" "My faith," replies his friend, raising his shoulders to his ears and extending two conspicuously dirty palms, "it is truly a droll affair, but I do not know." *Mr. Punch's* wit was justifiable, but its objects might have retorted with a *tu quoque*. Fifty years ago our man-in-the-street was far from being the well and regularly washed individual that he now is. The matutinal "tub" had not as yet become the daily institution that the introduction of baths into second-class modern houses has helped to render it; and amongst the well-dressed, and therefore respectable, members of the community there were many persons of both sexes who habitually neglected from one year's end to another the ablution of the covered portions of their bodies. But whatever

may have been the condition of things on the continent with regard to corporeal cleanliness when the last century was passing middle age, it is quite clear that, thanks mainly to antisepticism, educated foreigners are nowadays fully alive to its importance. Writing in the *Archives de Médecine Navale* for January last Dr. Lassabatie expresses himself to the following effect with reference to an ambulant *lavabo* which he has had constructed for use in the wards of the naval hospital at Rochefort: "Clean hands being just as imperious a necessity in the dresser and nurse as in the operator the means of cleansing them should always be available with the least possible expenditure of time and trouble. All persons whose duty involves contact with patients, medical as well as surgical, should therefore be able to render their hands aseptic without being obliged to run backwards and forwards in search of the needful appliances." In constructing his *lavabo* Dr. Lassabatie's first thought was efficiency, but he was likewise in a measure governed by the inevitable question of expense. Moveable washstands are turned out in abundance by the purveyors of sanitary requisites, but since many of them are unsuitable for various reasons and all are costly the inventor was impelled to institute the present experiment, which has proved to be a complete success. The fact that from motives of economy the Rochefort appliance has been constructed of wood does certainly add considerably to its heaviness, not only actually but also in an æsthetic sense, but no doubt it will be possible to devise a similar article with a metal skeleton which will be far lighter and more elegant in appearance. Wherever practicable the woodwork has been protected by glass panels and great care and ingenuity have also been exhibited in avoiding the occurrence of nooks and corners where dust could accumulate and microbes find a lodgment. Each *lavabo* supports two 18-inch basins of an oval shape, and four glass receptacles for aseptic fluids, which can only be set flowing by pressure of the foot. There are no plugs or stop-cocks for use by the hand. The whole apparatus with its fittings, which include also ample accommodation for dressing materials, costs about £6 (150 francs). It is a firm and substantial structure, but can be moved about with great ease and also quite noiselessly. Dr. Lassabatie sums up the advantages of his invention in the following terms: "The mobility of all the shelves, the rounded framework and supports, from which all angles have been, so to speak, completely suppressed, the exceeding facility with which the different fittings—such as basins, soap-dishes, bottles, &c.—can be removed for cleansing purposes, all these points combine in the production of a convenient piece of surgical furniture which answers to every requirement of the most scrupulous cleanliness. Thanks to it the surgeon throughout the whole of his visit has close beside him all that he requires to render his hands aseptic, while at the same time he is able to assure himself that the success of his labours will not be jeopardised by neglectful students or attendants."

THE METROPOLITAN WATER-SUPPLY.

THE February report of the Water Examiner to the Local Government Board has recently been published. It consists, as usual, chiefly of matter supplied by the engineers and chemists of the water companies. Dr. T. E. Thorpe, the Government analyst, reports that the water supplied by the Kent Company was of great organic purity and that that supplied by the New River Company was of very good quality. The only samples of water of which full analyses were made were taken on Feb. 18th, when the amount of organic impurity was found to be greatest in the case of the water of the East London Company, which was more than five times greater than that of the Kent Company. The water derived from the Thames was of "fair quality" throughout the month. This is faint praise. The East London Company's water was "inferior to the Thames water." The processes of purification adopted by some of the metropolitan water companies are obviously inadequate.

THE DESIRABILITY OF SPECIAL HOSPITALS FOR HIP-JOINT DISEASE IN CHILDREN.

DR. GRANT ANDREW read a paper before the Pathological and Clinical Society of Glasgow last December, the main object of which was to impress on the medical profession of Glasgow the very urgent need there is for the establishment in that city of a special hospital for the treatment of disease of the hip-joint in children. There are few diseases in which neglect, while not leading immediately to death, will cause more prolonged misery and discomfort than tuberculous disease of the hip-joint, and there are few in which timely treatment will more fully repay the care of the surgeon. For a truly successful result time is needed. The joint must be kept at rest with the aid of suitable apparatus for weeks, for months, and sometimes even for years, until the tuberculous disease subsides and the joint returns more or less completely to its normal state. If the disease has lasted only a short time, complete rest for a few months may restore the hip-joint to perfect health and with free mobility in every direction. If the period during which the disease has acted be longer, longer also will be the time during which the joint must be kept at rest, and the recovery which ultimately ensues will be by no means so perfect as in a less advanced case. When a case occurs in a child belonging to a family which can supply him or her with adequate care and nursing satisfactory results can be obtained, but the disease is by far most common among the class of patients who attend the out-patient department of hospitals, and the home arrangements in these cases are nearly always utterly unsuitable for a child with disease of the hip-joint. However willing the mother may be, the limited accommodation and absence of appliances make it absolutely useless to attempt to undertake the treatment in such houses and under such conditions. Therefore the child's admission into a hospital becomes absolutely necessary. For the treatment of the disease, when the child has been admitted, there are two chief methods. When the operation of excision of joints was introduced, and especially after the powerful advocacy of Fergusson, the head of the femur was more and more frequently excised, often at an early stage of the disease. In a large proportion of the cases the tuberculous affection was indeed stayed, but often a comparatively useless limb was left, so that in many instances the patient was condemned to carry about for the rest of his life a limb which had been rendered valueless by the removal of the head of the femur and the consequent destruction of the hip-joint. It became slowly recognised by many that such results as these were only too frequent, and though it was found that excision in some cases was followed by a rapid recovery with a useful limb, yet on the whole the results were no better, and in many cases worse, than could be obtained by less energetic measures. Thus there arose a reaction against the indiscriminate practice of excision and a more rational, if more tedious, treatment by rest with extension received ever-increasing support. It was found that with prolonged rest a large proportion of the cases of hip disease would recover without any operative interference beyond the opening of an abscess, and if extension were combined with this prolonged rest the ultimate position of the limb was all that could be desired, even though the joint might be ankylosed. There was also a minimum of shortening. For this prolonged rest, however, the wards of a general hospital are by no means well suited. The pressure on the accommodation of

these hospitals entirely negatives the devotion of a number of beds to such tedious cases as those with disease of the hip, and there is therefore in many cases a compulsion to adopt more energetic measures than would be employed if the surgeon could have felt justified in keeping the patient for an indefinite period in hospital. In London the feeling that these cases should have the opportunity of resting for prolonged periods gave rise to the establishment of the Alexandra Hospital for disease of the hip where a certain number of children can be admitted and where they are kept until the disease has subsided. In some instances the period during which the child is an in-patient must be measured by years. The demand for admission, however, far exceeds the accommodation available, and so the others are treated as out-patients and nurses from the hospital visit them at their homes to fix and to adjust the extension apparatus supplied to the patients. It is the establishment in Glasgow of such an institution as this that Dr. Andrew advocates and its value must be apparent to all who carefully study the subject. All that we have said as to the desirability of prolonged rest in hip disease applies equally to tuberculous disease of the vertebral column. In the case of that disease, also, the exigencies of space compel the surgeon to treat as an out-patient many a case which would have derived signal benefit from a more prolonged period of rest. Therefore for spinal caries also the establishment of institutions is desirable where the patient may remain until recovery occurs. If general hospitals could afford to devote a certain number of beds to these cases there would be no need for any new hospital, but as the accommodation in most hospitals is already insufficient for the needs of the urgent cases coming to them it is hopeless to expect that any beds can be set aside, and therefore the need of a special hospital for this purpose becomes evident. As both hip-joint disease and caries of the spine are nearly always tuberculous, any hospital intended specially for them should certainly be adapted for the open-air treatment of tuberculosis, and placed in a suitable position and suitably arranged and constructed. The centre of a large city is by no means an ideal situation for such a hospital; rather it should be placed in the open country. Managed in the right way such an institution can prove of incalculable value to the patients admitted into it and will assist in the general advancement of surgical knowledge.

ALCOHOL AND ITS EFFECTS UPON THE NERVOUS SYSTEM.

AN important discussion on this subject took place at the New York Academy of Medicine on March 7th last, when various eminent physicians recorded their observations and experiences. Dr. Charles L. Dana in introducing the subject regarded it both in its practical and scientific aspects. He based his observations on the careful study of 350 cases of alcoholism at the Bellevue Hospital. The most frequent form of alcoholism was periodical dipsomania and the next was pseudo-dipsomania. Over two-thirds of the total number of patients had begun to "drink" before the age of 20 years, and all of them before 30 years. "As a rule," said Dr. Dana, "the drunkard did not live more than 15 years, and it was seldom that the human organism could outlive more than 3000 intoxications." Death in alcoholics usually occurred from pneumonia, meningitis, delirium tremens, alcoholic insanity, or dementia. Dr. Herman Biggs stated that in 15 years the cases he had seen of drink were those resulting from indulgence in whisky and beer, the majority of patients taking two or three glasses of whisky and four or five pints of beer daily. In these cases cirrhosis of the liver was relatively less frequent, while the degenerative effects, such as disease of the heart, blood-vessels, and kidneys, were much more common. Looking over the records of the Health Department of New York he found a short time ago that whereas during 20 years the population had increased by from 50 to 60 per cent. the number of deaths recorded as due to degenerative diseases of the heart and blood-vessels—most frequently of alcoholic origin—had increased by nearly 150 per cent. and almost the same was true of renal disease. The excessive consumption of lager beer in the United States, as in Germany, produced renal disease and cerebral accidents. Professor M. Allen Starr said that of the various alcoholic beverages champagne produced exhilaration of spirits and stimulation of the flow of ideas, while Burgundy made a person think more slowly and by no means added to the feeling of conviviality. Alcohol seemed to affect the brain more than it did other parts of the nervous system. There was practically no known disease of the spinal cord produced by alcoholism, but both encephalopathy and peripheral neuritis were common. The pathology of alcoholic insanity was to-day clear and characteristic. The researches of various observers, especially Andriezen and Berkley, showed that the alcoholic poison produced destruction of the epidendritic "gemmules" belonging to the nerve-cells of the brain, thus rendering the organ relatively incapable of receiving impulses, weakening reaction time, and producing loss of memory in general, features which were characteristic of nearly all forms of chronic alcoholism. The neurasthenia of the chronic drunkard was dependent on degenerative changes in the protoplasm of his brain-cells. Such persons were little open to medical treatment but were more susceptible to social and religious influences. He was of opinion that "any measure of a religious or social character that could be brought to bear upon the individual was well worthy of trial. ..... The only reformed drunkards of whom he had knowledge were those who had been saved not through medical but through religious influence." Dr. Alexander Lambert pointed out the importance of heredity and quoted statistics to show the abnormally large proportion of defective and diseased children in the progeny of alcoholic parents. Dr. James Ewing referred to the pathological changes in the brain associated with alcoholic delirium tremens, and stated that the discoveries made by the aid of Golgi's and Nissl's methods demonstrated a close analogy to the brain lesions of sunstroke, tetanus, and hydrophobia. From necropsies made at various hospitals in New York it appeared that the visceral lesions of alcoholic origin were more prominent than those of tuberculosis or of syphilis. Dr. S. A. Knopf pointed out that alcoholism was a pronounced factor in predisposing towards tuberculosis. Statistics showed that 25 per cent. of children committed to sanatoria for tuberculous diseases had alcoholic parents. Dr. G. L. Peabody said that intemperance often arose from ignorance or from the want of a stimulant to relieve depression and fatigue after the day's work. Sherry wine was a flavoured spirit containing from 35 to 40 per cent. of alcohol, and many of the so-called "bitters" in the market recommended as a substitute for alcohol and as conducive to temperance contained from 40 to 50 per cent. of alcohol. This should be made known to ladies who took them under the misapprehension that they were non-alcoholic beverages.

MILL-OWNERS AND RIVERS.

MR. JUSTICE DAY recently gave judgment in a case heard by him at Exeter which is of interest to those who view with consternation the pollution of our rivers, whether by domestic sewage or by the fouling incidental to certain manufactures. In Willcocks v. Hamlyn Brothers, the case referred to, the plaintiffs sought and obtained an injunction against the defendents for diminishing their supply of water. Both are mill-owners at Buckfastleigh, a small town in South Devon, situated on the Dart, some few miles above

Totnes, and also, of course, above Dartmouth. The defendants in the course of their manufacture fouled the river, and in connexion with a new sewerage scheme were requested by the sanitary authority to divert all water so polluted from the river, making use of the sewerage system for its disposal. This they did, but although by repairing an old leat they endeavoured to make good the amount of water thus taken from the river they failed to do so, and the plaintiffs, who needed a full supply of water as a motive power and for other purposes, complained. Mr. Justice Day in giving judgment approved, as he could hardly have failed to do, of the action of the sanitary authority in forbidding the return of polluted water to the stream, but at the same time declared the right of the riparian owners below the defendants to have their due supply of water undiminished. The result of this appears to be that manufacturers can be prevented from fouling rivers and that manufacturers so prevented who need a large quantity of water for the carrying on of their works must arrange matters so that they may obtain it without depriving others of that which they are entitled to have unimpaired both in quantity and quality. Very many persons besides the successful plaintiffs in the action to which we have called attention must be directly interested in the maintaining of the purity and the volume of the waters of the Dart at every point at which either can be assailed.

PRUS'S METHOD OF RESUSCITATION IN CHLOROFORM TOXÆMIA.

DR. FREYBERGER,[1] in *Treatment* for January, 1901, p. 785, gives a very interesting *résumé* of a method of which we as yet know very little. The patient upon whom it was tried was a labourer, aged 27 years, about to be operated upon for severe sciatica. He was presumably healthy. Chloroform was administered at 8 A.M. from an Esmarch's mask. Slight excitement was met with, but in 15 minutes complete anæsthesia, it is stated, was established; the pupils were contracted and the respiration was normal. However, when the incision over the sciatic nerve was made struggling occurred. This seems to point to the fact that "complete anæsthesia" at least was not present. More chloroform was given, but as soon as a few inhalations had been taken "asphyxia" developed. This was recovered from after the employment of tongue traction and artificial respiration. Four drachms of chloroform had up to this point been given and no more was subsequently used. The operation was proceeded with, but after a few minutes respiration again failed and this time the measures for resuscitation were unsuccessful in relieving the asphyxia. Ten minutes having been spent in fruitless attempts to resuscitate the patient the trachea was opened and air was blown into the lungs through an indiarubber tube. This measure was without effect. Prus's cardiac massage was then decided upon and was carried out in the following manner. An incision was made in the skin and muscles obliquely, the flap having its base in the left mammary line and its borders being parallel to the third and fifth ribs and left sternal edge. The third and fourth ribs were cut close to the sternum and two and a half inches were resected in the flap. In doing this the left pleural cavity had been accidentally opened. The hand was then introduced and the heart with the pericardium still intact was grasped. No heart movements were felt. Rhythmic compressions of the heart were systematically practised partly by grasping the viscus and partly by pressing it against the back of the sternum. After a short time slight spontaneous contractions were felt. The perflation of the lungs was maintained throughout. The spontaneous cardiac movements gradually increased, but no spontaneous respiration was initiated until half an hour after the artificial cardiac compression had been commenced. They were at first feeble and infrequent, and it was not until two and a half hours after the failure of respiration that the patient was able to take more than 10 consecutive respirations. At the end of three hours he was, however, breathing deeply and without effort. At this point both cardiac compression and artificial respiration were discontinued. He was absolutely unconscious and insensitive; all the wounds were sewn up and dressed without exciting any sign of consciousness or sense. Four hours from the commencement of the inhalation respiration became again difficult and after a few minutes completely ceased. The final phenomena of this most curious and, we believe, unique case are best given in Dr. Freyberger's own words: "From this until death—that is, from midday until 8 P.M.—he drew not a single breath, but his heart continued to beat with sustained force for more than seven hours before its strength began to fail." It was beating per minute. The patient throughout all this period did not regain consciousness. The pupils did not react to light and were contracted. The radial pulse was imperceptible all the time, but there was visible venous pulsation in the neck. It is stated that after the final respiratory failure the stomach and intestines became atonic and distended with gas and that "the intestinal odour" was detected in the air forced out of the lungs in the process of artificial respiration. The temperature of the body was fairly maintained, falling slightly; after eight hours it was 98° F. in the rectum and after 11½ hours 94°. Although every measure likely to restore respiration was tried all failed. The necropsy revealed that the right lung had firm adhesions to the chest wall, while there was pneumothorax on the left owing to the accidental wound in the pleura. A possible cause of death is suggested—viz., that owing to bad ventilation of the room the stove allowed phosgene gas to be formed from the chloroform (four drachms) which accumulated and poisoned the patient. In controversion of such a theory it must be remembered that it is well known that the operator, his assistants, and the nurses as a rule are more affected by this poison than is the patient, and in the case in point it is expressly stated that no one even noticed the suffocating fumes which are at once detected when phosgene gas is present in a room. Furthermore, the small quantity of chloroform evaporated renders this view highly improbable. The more likely cause seems to us to be the artificial pneumothorax resulting from the wound in the left pleura, which, associated with the adherent right lung, must have seriously interfered with respiration. Even this theory is not sufficient, for it appears that the respiratory movements were at fault rather than any mechanical impediment to the ventilation of the lungs, so that the medullary centre appears to have been practically rendered *hors de combat* four hours after the chloroform had ceased to be inhaled and never again to have reacted to the stimulus of perfused air which entered the lungs, and in spite of the fact that the heart was beating vigorously and automatically. It must be admitted that the case is one which defies explanation, while it affords hope that Prus's method may in suitable cases, and when resorted to earlier, restore life in cases of cardiac failure in chloroform toxæmia. The pneumothorax thus accidentally produced must be admitted to be at least an added danger, and Dr. Freyberger considers it as such, hence its avoidance in the operation required for the performance of Prus's plan of heart massage becomes a matter of great moment. Weber[2] has suggested, as Dr.

[1] Cf. Hospitalstidende, 4 Rokke, Band viii., No. 47, by R. Kler-Petersen.

[2] Ueber eine neue Methode der Brusthorberöffnung zur Bloslegung des Herzens. Bericht über die Verhandlungen der Deutschen Gesellschaft für Chirurgie, Beilage zum Centralblatt für Chirurgie, 1899, Band xxvii.

Freyberger points out, a safer method of exposing the heart. He makes the following incision. From the right edge of the sternum close to the insertion of the fourth rib cartilage an elliptical flap of skin and muscles is made across the sternum to the upper border of the corresponding rib on the left about a finger's breadth from the sternum. This is continued obliquely over the fourth, fifth, sixth, and seventh ribs, ending at the left costal margin. The sternum is sawn across at the level of the skin incision. The intercostals in the third space can be detached without injury to the intermammary artery. The cartilages of the fourth to the seventh ribs are cut from without inwards. The under surface of the flap being carefully freed the xiphoid is divided by a bone forceps and the flap is dissected up. It is worth noting that although normal saline solution was introduced after the final failure of respiration it was not employed in the earlier stages of the case. We think such a use of saline solution as soon as the heart's action is re-established should be adopted in all cases in which a poison such as chloroform has been acting upon the nerve centres through the blood, as it certainly offers a chance of diluting the poison and of assisting the circulation. Although Prus's plan may appear heroic, yet it must be borne in mind that in the class of cases in which it is intended to be of use the danger is urgent and most grave and demands any measures, however severe, which appear to offer a reasonable chance of success.

REGULATION OF MARRIAGE IN MINNESOTA.

A MOST important problem that confronts the medical man and sanitarian is how to prevent as far as possible the perpetuation and increase of disease. The sanitarian has been doing, and is doing, his part nobly in providing pure water, good drainage, and airy and well-ventilated dwellings, with the result that the spread of certain maladies has been considerably checked. But unfortunately there is one—the most potent—means of disseminating disease which up to the present it has been found impossible to prevent. The marriage of diseased individuals is a very sure way of propagating and spreading a large number of deadly maladies. There can be no doubt that insanity, epilepsy, idiocy, tuberculosis, and syphilis would be very much less frequent were they not transmitted by the agency of marriage, and it would decidedly be for the welfare of the community at large if marriages between persons afflicted with any of these diseases could be hindered. The facts are too notorious to need emphasising that the marriage of tuberculous individuals will result in the propagation of a progeny predisposed to the contraction of the same disease; that the union of those afflicted with epilepsy or idiocy, or who have been insane, will increase and spread these conditions to a lamentable extent; that gonorrhœa is responsible for a large proportion of women's pelvic troubles; and that syphilis is the greatest cause of abortions and still-births, besides contaminating and rendering weakly the offspring of those infected with its poison. The difficulty is to decide what steps to take to restrain marriages between persons thus affected. In Great Britain public sentiment is doubtless too strong against prohibitive legislation to anticipate any such drastic measures being enforced. In the United States, however, a large number of laymen and medical practitioners throughout the country are altogether favourably disposed to the regulation of marriages by the State. Already several Bills have been introduced into different States with this end in view. North Dakota in February, 1899, passed a Bill to regulate marriage. Under this law no licence to marry is granted unless the applicants present a certificate from a board of examining physicians that they are free from infectious venereal diseases. Michigan passed a law in 1899 making it a felony for any person with uncured syphilis to marry. Into the legislatures of other States resolutions have been introduced providing that persons desirous of being married must produce a medical certificate testifying to their sound health before the ceremony can be performed. But the most sweeping Bill of this description as yet brought forward is that of Minnesota. This Bill, which passed the Senate of that State on March 23rd, is proposed as a measure to restrict the marriage of persons afflicted with mental or physical disorders. The measure is said to be reasonably certain to become law, and while it is aimed at the class above-named it will affect all those seeking marriage, inasmuch as a physical examination of the candidates for matrimony is a *sine quâ non*. The Bill provides that no man or woman who is epileptic, imbecile, feeble-minded, or afflicted with chronic insanity shall intermarry within the State when the woman is under the age of 45 years. Any person who, not being an epileptic, marries an imbecile or one afflicted with chronic insanity or who knowingly violates this provision shall upon conviction be punished by a fine of not more than $1000 (£200) or by imprisonment in the State prison for not more than five years or by both such fine and imprisonment. Marriage licences cannot be issued unless accompanied by a certificate from a reputable physician testifying to the health of candidates for matrimony, and so far as can be judged to their good family history. The great increase in the number of inmates in the insane and imbecile asylums of Minnesota affords the strongest argument in favour of the passage of this Bill. Of course, it is more than doubtful if legislation of this nature will be found workable, and its desirability is also open to doubt. The argument of those who uphold prohibitive legislation to restrict marriages between the unfit is that some State must make a start and that if the remedy is successful others will quickly follow. The experiment of Minnesota will be watched with interest. But the old difficulty of squelching the promptings of animal nature is ever with us—"Naturam expellas furca, tamen usque recurret." And there is danger in too grandmotherly legislation.

DYSBASIA INTERMITTENS ANGIOSCLEROTICA (INTERMITTENT LAMENESS OF VASCULAR ORIGIN).

IN the *Boston Medical and Surgical Journal* of Feb. 21st Dr. James J. Putnam has published a case of this rare condition, which was first described by Charcot in 1854 and subsequently investigated by Goldflam and Erb. The subjects are persons usually past middle life. After walking for from five to ten minutes they are seized with a helpless cramp-like feeling in the legs which is so severe as to render further progress impossible. After a few moments' rest they can walk again. Careful examination of the legs usually reveals signs of defective arterial supply. One or more of the pedal arteries, and even the popliteal arteries, may be pulseless, and the foot, as a consequence, cool and slightly pale, or red, or blue, according to circumstances. As dysbasia intermittens sometimes occurs when the arteries are apparently pervious vasomotor spasm has also been suggested a a cause. In Charcot's first case a tumour was found compressing the popliteal artery. The occurrence of the symptoms during exertion may be due to the need of the muscles for an increased supply of blood or to the induction of vascular spasm. The disorder is chronic. Considerable improvement may sometimes be produced by measures which tend to promote the circulation—iodide of potassium, warmth, prolonged galvanism with the feet resting in warm water, and cardiac tonics. An active business man, aged 70 years, came under Dr. Putnam's care. His history was exceedingly good and he showed no signs of visceral disease.

Two months previously he began to suffer from intense pain and a sense of fatigue in the legs every time he walked more than one-eighth of a mile. On resting the symptoms quickly passed away. The pain was usually felt first in the left calf, then in the right, then it spread upwards omitting the knees and becoming centred in the hips, when he was compelled to stop. The heart was normal. Pulsation could be felt in only two of the four pedal arteries, and in one of these it was scarcely recognisable. Galvanism and faradaism were applied to the lower limbs while the legs were immersed in warm water, but no improvement was obtained. The patient then took to kneading his calves night and morning and began to improve. Ultimately he could walk one or even two miles without much difficulty.

THE MARTYRED PRIMROSE.

IT is probably too late for this season to stay the wholesale destruction which is annually carried on in the home of the primrose. No flower is more truly native or expressive in our lowland rural scenery than this lowly gem. None is more dear to the dweller in these islands. And yet every spring witnesses cartloads, not of flowers but of whole plants, dug out of their green pastoral setting and carried to the metropolis to languish awhile in window-boxes and smoke-haunted gardens and then too often to die. It is well to preserve the memory of illustrious persons and well also to adorn the grey sobriety of towns with livelier hues, but surely not at so great a sacrifice as this. Cut flowers will best fulfil the former purpose, and if it be desirable to decorate our public parks and suburban gardens this object can most properly be attained by following some intelligent and regulated method. If the present systemless havoc be allowed full licence we are likely to find that our rustic fields, which have hitherto been flower-spangled after nature's own chaste and lavish taste, are become barren of that grace. Legislation has stepped in to protect wild animal life, with the result that species once in danger of extermination have begun to thrive again. Cannot something be done by the same means and by the local resolve of county councils and landowners to prevent this barbarous uprooting of the primrose by trading collectors?

INFECTION WITH BALANTIDIUM COLI.

IN the February number of the *Bulletin of the Johns Hopkins Hospital*, Dr. Richard P. Strong and Dr. W. E. Musgrave of the United States army in Manila described a case of infection with balantidium coli (Stein). This organism, they say, was probably first observed by Leeuwenhoek. Malsten, in 1857, in Stockholm, first described the parasite in a patient who suffered from painful diarrhœa. A great number of the parasites were found in the intestinal mucus and fæces, and the condition of the patient improved considerably as they decreased in number. The patient observed by Dr. Strong and Dr. Musgrave went to the Philippine Islands in December, 1899. He was perfectly well until April, 1900, when he began to have diarrhœa which continually grew worse. He entered the hospital on June 9th, and from that date up to the time of his death on August 11th he had continuous uncontrollable diarrhœa. The stools showed large numbers of flagellate infusoria, measuring from 70μ to 110μ long by 60μ to 72μ broad. The periphery was covered with fine actively motile cilia. An ectosarc and endosarc could be distinguished, and the parasite possessed the power of changing its shape. For some days before death each portion of the patient's fæces placed beneath a cover-glass contained between 100 and 200 of these infusoria. At the necropsy the mucosa of the large intestine was found to be covered with bloody mucus, beneath which the mucosa itself was very much reddened and contained a number of shallow ulcerations. Dr. Strong and Dr. Musgrave regarded the parasite as the exciting cause of the diarrhœa.

LEICESTER AND HYDROPATHY.

SOME years ago[1] we commented upon the action of the Leicester Board of Guardians who tried to induce their medical officer to allow a Mr. Pickering to experiment upon the paupers under treatment in the workhouse infirmary for fever. Mr. Pickering is the exponent of a hydropathic treatment, but the medical officer, naturally enough, declined to allow the experiment—a decision which seems to have hurt the feelings of the guardians. The advocates of hydropathy are, however, to use a sporting phrase, "still going strong," and they have seized upon the opportunity afforded by the resignation of Mr. H. G. H. Monk, who was medical superintendent of the isolation hospital, to ventilate their fad afresh. The question of the appointment of a temporary medical officer was debated by the Sanitary Committee on April 3rd, but we are glad to see that the water-cure faddists' nominee was beaten by a small majority. Leicester is an odd place. If the hydropathists are so anxious to promulgate their fancy why do they not try it on themselves and not on unfortunate paupers? The present medical officer is Mr. H. R. Hancock, and we have no doubt that he will not have the slightest hesitation in ordering a patient a bath if in his opinion the patient requires one. But this is not enough for the hydropathists.

"BACTERIOLOGY AND THE MERCHANDISE MARKS ACT."

ADVERTING to an annotation in THE LANCET of April 6th, p. 1030, under the above heading, a correspondent who writes as a tobacco expert, while interested in the possibility of bacteria being turned to account in the production of fine flavours, "would point out our error of description" in this connexion. He says, and this is of course well known, that Havana produces varieties of tobacco (of flavour and texture), and he asks "if the specific microbe could be of any service why does not nature retain its original course and perfect the plants in the combined and normal environment?" He adds that "surely no plea of [a similar] environment can be considered as possible existing between the Neckarthal district or even Alsace compared with Havana." He rightly assumes that no well-informed person will deny the progressive inferiority of the Havana cigar and he asks, Is this due to the depreciation of the tobacco, the presence of the microbe, or the depreciation of the microbe? Of course, bacteria do not produce tobacco, but tobacco is nothing without being fermented and in the process of fermentation definite organisms are concerned. The bacteria produce changes in the carbohydrates, vegetable acids, and in the nicotine, evolving new substances which add very materially to the flavour and aroma of the tobacco. In the same way yeast organisms produce from grape juice an alcoholic fluid containing new substances, whence the bouquet, which make it wine. We are not referring to probabilities but to actual well-established bacteriological facts. Havana bacteria have been isolated which differ from those of the German "weed" and the inoculation of the latter with Havana bacteria has resulted in a greatly improved flavour. The analogy to wine, again, holds, for wines are improved by the inoculation of the grape juice with specific pure yeast. Of course, much depends upon the quality of the original article. As to the deterioration of the Havana cigar, even that may find explanation in bacteriological facts: the cultivation

[1] THE LANCET, March 6th, 1897, p. 676.

may be at fault or the soil impoverished, so that the leaf is poor in substance and unfavourable to the development of the special bacteria during fermentation which have much to do with the production of flavour and aroma. The quality of hay depends largely upon fermentation produced by a specific thermogenic organism by the operations of which the hay acquires its peculiar aromatic odour.

THE PROSECUTION OF T. R. ALLINSON.

WE are glad to see that the police, who certainly do not move precipitately in such matters, have struck a blow at the trade in obscene literature sold under the guise of "medical works," by bringing T. R. Allinson, ex-L.R.C.P. Edin., before the magistrate at the Marylebone Police-court. The result of the proceedings was that two of the summonses were adjourned *sine die*, the defendant being bound over in £250 to come up for judgment if called upon, an obligation which should act as a restraint upon his future operations; while under a third summons a large quantity of printed beastliness was ordered to be destroyed forthwith, Mr. Curtis Bennett remarking that he had read the pamphlets and that nothing more filthy could possibly have been written, and that they contained as much filth as could be compressed into a given space. The pernicious nature of Allinson's trade will have been realised by those who read that these pamphlets, sold as advice to married women, were sent to a detective who inclosed payment and described himself as a girl, 17 years of age, who had just left school, and who gave an address at a newsagent's. While congratulating the public and the medical profession on the result of this prosecution we cannot congratulate the police on their vigilance or their zeal. The trade of Allinson was not unique. We printed recently a list of books and pamphlets appearing under the title "Medical Works" in the advertisement columns of the *People*. A glance at these will show that there are others besides Allinson whose trade might well be inquired into.

INFANT MORTALITY IN RUSSIA.

SOME remarkable figures relative to infant mortality in Russia are published in the *Novosti* of March 26th, based upon statistics compiled by the Central Statistical Committee (probably with Government help) and summarised by Dr. Nikitenc. For great natural increase of population Russia stands well among the first of European countries, the birth-rate being from 37 to 46 per 1000; but unfortunately this great annual growth does not show markedly owing to the high death-rate among young children. The mortality in towns is much less than among the peasantry. Only 732 infants out of every 1000 born survive their first year. According to the returns for 1897, out of a population of 95,215,415 in the 50 governments of European Russia the number of deaths was as follows: children up to one year, 1,196,674; children up to five years, 1,858,850; children up to 15 years, 2,100,757; and adults, 991,044. According to the medical department, the deaths of infants from 1887 to 1892 were annually about 385,000 from Asiatic cholera alone. By dividing Russia into two "belts"—the north-eastern with 27 governments and the south-western with 23—detailed examination is facilitated. In the north-eastern belt for the four years 1893-1896 there died 3,242,065 children out of 10,037,287 born, while in the south-western belt the deaths were 1,544,632 out of 7,826,679 born. In the north-eastern belt there are some districts where more than half the children born never survive their first year, and in some years the rate has risen to 626 per 1000. This great mortality is attributable chiefly to irregular and unsuitable feeding of infants in the peasant families. In the Ufimsky, Kasansky, and Orenburgsky districts, where Mahomedans are in the majority, the infantile mortality is distinctly less.

THE TRAFFIC IN OLD HORSES.

ON March 30th a man was fined at the Thames Police-court £3 and £1 11*s.* 6*d.* costs under the Cruelty to Animals Act for leading a horse which was very lame and in pain. The horse was going to be shipped on board the Rotterdam boat. We pointed out some time ago[1] that an order had been issued by the Board of Agriculture by which, from Jan. 1st, 1899, it should be unlawful to convey from any port in the British Isles to any place outside the British Isles "any horse which, owing to age, infirmity, illness, fatigue, or any other reason cannot be so conveyed without cruelty during the intended passage and upon landing." Offences under this order were to be dealt with as under the Diseases of Animals Act, 1894. By this Act anyone offending against its provisions shall be liable to a fine not exceeding £20, or if the offence be committed with respect to more than one animal to a fine of not exceeding £5 for each animal. We have not, however, seen reported a single case where punishment has been inflicted under the Diseases of Animals Act and the Order of the Board of Agriculture, and we should be glad to know why magistrates and others do not use the powers to which they are entitled. As we have said over and over again, the traffic in old worn-out horses is a disgrace to this country. It should be stopped altogether, but pending a regulation to this effect the abominable trade should be made as expensive as possible, so that those who carry it on should be made to feel that it does not pay. Apart from the cruelty involved, even if people like to eat the flesh of diseased and worn-out animals it is no reason why we, as a nation, should make money out of pandering to such a taste.

HÆMORRHAGE FROM TONSILLAR ABSCESS.

HÆMORRHAGE from a tonsillar abscess is so rare that the following case published in the *New York Medical Journal* in March by Dr. W. F. Chappell is of interest. A man, aged 27 years, had two attacks of quinsy in the past two years, each resulting in an abscess which had to be opened. A third attack began on Dec. 1st, 1899, with great pain in the right side of the throat, extending down the neck. He was under treatment for five weeks, during which time four incisions were made with little relief. He then went to the hospital with great swelling of the neck, which was evident both internally and externally, and an abscess pointing in the middle of the posterior pillar of the soft palate. A small incision was made and about half an ounce of foul pus escaped. Pus continued to discharge and the swelling diminished. On Jan. 21st, 1900, four days after the abscess was incised, he complained of sudden severe pain in the throat. In a few minutes about six ounces of blood were lost. The hæmorrhage ceased on the application of tannic acid. Four hours later a hæmorrhage of about eight ounces occurred and was arrested by an astringent gargle. The urine contained much albumin, epithelial and pus cells, and granular casts. On Jan. 26th hæmorrhage to the extent of eight ounces occurred in the morning. In the afternoon the tonsillar and cervical tissues were distended and painful. Blood was still oozing from the opening in the posterior pillar and the abscess cavity was filled with clots. A large incision was made through the anterior surface of the soft palate and carried backwards until the abscess cavity was reached. After washing out the clots with hydrogen peroxide solution the ascending pharyngeal artery was seen at the outer posterior wall of the cavity. No ulceration

[1] THE LANCET, Feb. 16th, 1901, p. 495.

could be discovered in its walls. The cavity was packed with iodoform gauze. The packing was changed daily for 10 days, the wound healed, and no further hæmorrhage occurred. Dr. Chappell has found in the literature of the subject reports of 10 cases of which only two terminated in recovery. The first case was reported in 1825 by Dr. Samuel Walker. There was double tonsillar abscess. The left abscess opened spontaneously. There was a swelling in front of the thyroid cartilage which on being opened was found to communicate with the right tonsillar abscess. Two days later the patient died from great hæmorrhage, the blood gushing from the mouth and nose. The second case was reported by Dr. Thomas Watson in 1828. Two days after a tonsillar abscess had been opened 12 or 14 ounces of blood suddenly gushed from the throat and nose. The hæmorrhage recurred on the same day and on the following days. Two weeks later bleeding took place after eating, and while preparations were being made to tie the carotid artery the patient died from suffocation. The necropsy revealed the trachea and bronchi full of blood and a large erosion of the lingual artery. In almost all the cases the abscess opened spontaneously and probably an early incision would have prevented the extensive ulceration which implicated a large vessel. Dr. Chappell recommends immediate ligature of the carotid artery on the occurrence of the first hæmorrhage or, as proved successful in his case, a free incision through the anterior wall of the soft palate and firm packing of the abscess cavity with gauze.

THE annual dinner of the West London Medico-Chirurgical Society will be held at Frascati's Restaurant, Oxford-street, W., on Wednesday evening, May 8th, at 7 for 7.30 P.M. Communications should be addressed to Dr. G. P. Shuter, Oaklands, Chiswick-lane, W.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on April 3rd states that for the week ending March 30th 60 new cases of plague were admitted, of which 18 occurred in Europeans and 29 among the coloured population. The deaths numbered 22, of which six were Europeans. The total number of cases reported up to March 30th is 287 and the total number of deaths is 99. Among persons under naval or military control there have been 28 cases with three deaths. A Reuter's telegram, dated April 9th, says that five fresh cases had occurred that day.

THE annual dinner of the Royal Army Medical Corps will be held on Monday, June 17th, at 7.45 P.M., in the Whitehall Rooms of the Hôtel Métropole.

HIS MAJESTY THE KING has graciously consented to continue his patronage to the Charing Cross Hospital, and has also signified his intention to continue to be the patron of the Royal Infirmary, Newcastle upon-Tyne.

THE Cavendish Lecture of the West London Medico-Chirurgical Society will be delivered at the Hammersmith Town-hall on Friday, June 21st, by Sir Richard Douglas Powell who has chosen Acute Cardiac Failure as his subject.

QUEEN VICTORIA JUBILEE INSTITUTE FOR NURSES.—The annual meeting of the Cardiff branch of this society was held on April 1st, under the presidency of Canon Thompson. The report stated that 1214 cases were nursed during the year, compared with 1151 in 1899, while the number of visits made amounted to 32,635, against 32,486 in the previous year. The financial statement showed that the income amounted to £862 and the expenditure to £916.

THE ROYAL COMMISSION ON SOUTH AFRICAN HOSPITALS.

(Continued from p. 1037.)

VIII.

MR. BURDETT-COUTTS (page 17, "The Sick and Wounded in South Africa") says that he has never admitted that the defective medical arrangements rested solely on the transport, but rather on inherent faults of management, bad discipline, want of initiative, and a general spirit of *laisser faire*. The report (page 28) declares: "The military authorities had to decide, and did decide, what materials should be first sent up into Bloemfontein according to the pressure of military necessities, which were so great that it was found impossible to let the medical officers have a free hand in forwarding to Bloemfontein hospital equipment and necessaries. The chief of the staff was the ultimate authority on all matters relating to priority in connexion with the transit of materials along the greatly congested railway." Again: "Throughout the period of difficulty the officers of the Royal Army Medical Corps did their best to urge upon the military the necessities of their patients and the importance of providing for them." Further (at page 40) it is stated that to meet undoubted serious deficiencies in hospital equipment at Bloemfontein "considerable purchases were made in the town, and Surgeon-General Stevenson, in his evidence, states that he bought all that was available." Heavy hospital equipment could not be got up for some time owing to difficulties of transport (page 26 of the report). The provision of bedsteads, we may add, with a force over long lines of communication is incompatible with mobility. Stretchers must and do suffice admirably for field hospitals. It will be seen, therefore, that the Commissioners thoroughly recognise that the medical service were placed at enormous disadvantages at Bloemfontein owing to difficulties of transport for which they had no responsibility.

With regard to the alleged delays in removing patients to hospital from the railway stations the Commissioners admit that delays did occasionally occur. With reference to an instance, however, which was described by Mr. Burdett-Coutts and Mr. Murray Guthrie as having taken place at Bloemfontein the report alleges in explanation that it was due to the accidental separation of a truck. Still, as regards the general charge it is not denied that where wagon transport had to be used there were hardships. But the total number of deaths that occurred in the trains in transit up to September, 1900, only amounted to 14 out of over 22,000 men, in addition to 21 who died within two days of arrival. We may say that while the hospital train service was admirably organised and well carried out the ordinary train service left, in our opinion, a great deal to be desired. It seems absolutely necessary on such occasions to make provision for the supply of refreshment to troops, not only at the various railway stations *en route*, but in the trains themselves. The supply should consist of fluid nourishment and the means of heating it; and similar provision should be made on field service generally at the various rest depôts wherever these exist along a line of march. Whilst upon this subject we may note that in a general way a medical officer charged with the administration of any big hospital in time of war requires to combine the qualities which make a successful manager of an hotel with those requisite in a medical chief of a hospital. There should always be ample supplies of hot fluid foods ready for administration to batches of sick and wounded whilst they are being told off to their wards and their names are being taken.

Those of our readers who have either read the whole or our summary of the Commissioners' report will have gathered that the time of the march from Bloemfontein to Pretoria and the stay in the capital itself involved much stress and strain, and implied a good deal of discomfort and misery to the sick and wounded. Nor can it be denied that there were more or less lack of equipment, deficiency of hospital necessaries and appliances, and, in some cases, defective discipline and disorder. But the fact is that the size and work of the army had become enormously augmented, and there was a great rush on all departments. The army had been out-marching its supplies and in

every direction there was evidence of much shortcoming and undermanning. A race was going on between demand and supply, in which the former was always outstripping the latter. As a general rule, it is for obvious reasons advisable to have only one spending department for an army in the field, if only to avoid different branches of the army competing against one another in the market to their own mutual disadvantage and to the enrichment of the producer or seller. But it is, of course, quite right that medical officers should be empowered to purchase from any local markets anything that may be needed to meet exceptional or emergent occasions, and they had this power, which they possibly did not sufficiently exercise, during the campaign in South Africa. We need not go far, however, to seek the reason of this: they and all concerned were too overburdened with work in attending to their hospitals and patients to have either the strength or the time to do aught else. The fact is, that altogether too much labour and responsibility are imposed and concentrated on the medical service in time of war. If all is to go well with that service at such times it must have control over everything appertaining to its functions and the hospital and other requirements of the sick and wounded. Wherever it has had to depend upon other departments for its supplies experience has shown that these supplies are not forthcoming at the time, or if so that they are not of the nature and amount required, and consequently failure is the result. But the possession of authority and control need not necessarily be attended with increased personal labour on the part of those exercising it. What would seem to be wanted is an executive department subordinate to, and under the orders of, the Royal Army Medical Corps which, without interfering with the power and responsibility which should rightly belong to that corps, should nevertheless relieve it of all purely military and *quasi*-military duties, the charge of transport animals, and the making of purchases, for example. The calls upon executive medical officers under the requirements of the present age in respect of their hospital and purely professional duties are very important. The calls upon medical officers of administrative rank to see that the work of their subordinates is properly done and to organise, to superintend, and to administer the medical arrangements generally for the force under their immediate medical charge are no less urgent. It is advisable to relieve both classes of extra-professional work as much as possible. The way of doing this will be more fully considered hereafter, meanwhile we may suggest that a portion of the Army Service Corps under its own officers might be told off in war for the exclusive use of the medical service and for the sole purpose of executing its behests.

Want of enterprise has been alleged against the medical officers in not taking over and utilising more permanent buildings in captured towns for the use of the sick and wounded than was done. Setting aside the difficulties of furnishing the requisite hospital establishments and equipment required for the purpose, there is room for honest difference of opinion in this matter. It is astonishing how few public or private buildings are suitably constructed for hospitals in the way of cubic space, ventilation, and sanitary and cooking arrangements. They may possibly afford better protection and more personal comfort to their occupants for the time being than can be obtained in shelters of a less permanent character, such as huts, tents, and marquees, but such additional protection and comfort are too often obtained at the expense of the sick and wounded in other respects. The experience of all past wars and the lessons of sanitary science point in this direction. Aseptic surgery, when it can be at all properly carried out, has proved most effective in war hospitals, but it is relatively inoperative where defective ventilation and overcrowding are present. We have seen but few buildings, other than hospitals proper, which we should prefer to less permanent structures for the occupation of patients whilst under treatment for any serious wound or sickness.

We may here make a few remarks on the way in which the military and civil surgeons worked together. A few cases of friction, alluded to in the report, occurred between the two classes in certain hospitals and we have heard of others, but as a rule the relations between them were harmonious and good and the civil surgeons employed in the campaign have, as a body, done their duty extremely well. Civil surgeons labour under many disadvantages in a campaign. They are new to the work and they know nothing, of course, of the routine and regulations of army life in the field. Many things must naturally seem not only strange but strangely complicated, unnecessary, and irksome to them. Moreover, soldiers are no respecters of persons but respecters only of uniform, and if the civil surgeon wears no uniform soldiers have nothing to guide them. "Tommy's" whole training leads him to look to and to regard the uniform and not its wearer as the outward and visible sign of that commissioned rank which he is to respect. Soldiers are nevertheless keen observers and shrewd judges of character and professional merit, and any civil surgeon with the manner and bearing of a gentleman who is earnest and straightforward in the discharge of his duties will secure their confidence and respect even if he have no uniform. It is usually, in our experience, the man who thinks more of himself and of his importance than of the interests of his soldier-patients who fails to do so.

What we have understood to be the feeling of army medical officers in regard to the employment of civil surgeons in war may be represented somewhat as follows. As regards consultants of acknowledged repute and drawn from the staffs of large hospitals their presence is always most welcome, not only because of the great professional value of their advice and aid alike to the medical staff and to their patients, but because they constitute a special jury of experts upon whose judgment the public may rely. They can appreciate the difficulties and the success of the work that is being done by the medical service in the field. Setting aside the case of consultants, where friction arises between the military element and the civil element, faults will be found on both sides. Men of the right stamp and character cannot always be secured for either class. The military surgeon, for one thing, finds his labours increased rather than otherwise, perhaps, during the time that his civil *confrère* is acquiring some practical knowledge of the army regulations and system. There is besides some room for the existence of a feeling, which is very natural under the circumstances, that any competition which may ensue between them is an unfair one to the regular army surgeon who has to work with the materials, and be bound by the system, provided by the Government. Take the case of the army. The regulars are to volunteers as professionals are to amateurs, however good the latter may confessedly be. The hard work falls as a simple matter of duty to the lot of the former; they are expected, as disciplined troops, to exhibit superior powers of fighting and resistance and to sustain very serious losses rather than yield or fail in their attempts—qualities which they have certainly exhibited, as a rule, in this campaign. But the military virtues of regular troops, like the contents of a lengthy and formal document, are too often "taken as read." The big bold headlines in the daily papers are not usually for them and if one of the many heroic and distinguished regiments of the service were to return home to-morrow it would not be accorded the welcome which was given to the C.I.V.'s. The officers of the Royal Army Medical Corps cannot, we imagine, help feeling that they, like the rest of the regular army, may do their best under the most trying circumstances without receiving any special meed of praise; while if there should be any shortcomings it would be they and not the trying circumstances that would reap the discredit.

We have already referred to some of the defects and shortcomings of the train service. The Commissioners at page 55 of their report allude to the many complaints and cases of hardship that arose in connexion with the conveyance of patients to and from fixed hospitals. We may remark here that the Indian bearer service transport of the wounded from the battle-field and properly fitted hospital trains are admirable systems of land transport, and water transport, always preferable, is not always available. Where railway-trucks are used they must be fitted with some sort of protection from the sun and with sanitary appliances in the shape of buckets or with openings in their floors leading into moveable metal tanks provided with chloride of lime or other disinfectant.

The complaints about the hospitals on the lines of communication chiefly concern Sterkstroom and Norval's Pont. As regards the former they partly refer to an alleged want of attention and skill and lack of consideration for patients shown by some of the staff of a field hospital attached to the camp of the Third Division. The Commissioners say: "Without endorsing to the full the complaints against the hospital, still, after making allowance for the fact that it was only a field hospital, we are satisfied that its

management and condition were not satisfactory." With respect to Norval's Pont the Commissioners state that a number of the complaints appear to them to be substantial (*vide* pages 56 and 57 of the report). As everyone knows, some of the base hospitals at Cape Town have been subjected to much adverse criticism. Speaking generally, the Commissioners report very favourably of the condition of these hospitals and in support of that view quote the strong opinion of Colonel Cooper, the staff commander at the base, to the same effect.

At the conclusion of Part IV. of the report the Commissioners make a number of suggestions and recommendations of various kinds which as soon as the war is ended they consider should be decided upon by a departmental or other committee of experts. Among these are the following:—The staff of the Royal Army Medical Corps should be permanently enlarged and due provision made for its further necessary and speedy enlargement in times of great wars; inducements should be offered to insure a continuous supply to the corps of sufficient men of good professional attainments and those who have joined should be kept thoroughly acquainted with the general progress made in professional subjects and at a high professional standard of efficiency; increased and better provision should be made for scientific study and for promotion by merit; and there should be more nurses for fixed hospitals. The Commissioners also express the opinion that the committee which they think should be appointed might usefully consider whether the Royal Army Medical Corps should not have exclusive possession and control over all necessaries for the sick and wounded. They further recommend that strict inquiry should be made in the military hospitals now in South Africa, and proper steps be taken in order to stamp out, where it exists, pilfering by orderlies of the stimulants, comforts, or property of patients and the receipt of bribes by orderlies from patients. Several other points are likewise referred to on which we need not touch now. Speaking generally we quite concur with their suggestions and recommendations. Some of them are perhaps more easily made than carried out, such as the enlargement and increase of popularity of the Royal Army Medical Corps and the provision of a really efficient medical service adequate to the special needs and worthy of the position of a large empire like that of the British empire. As regards the Royal Army Medical Corps we know that it was thought that, when not only military rank but military titles were accorded to its officers, there would be no lack of medical candidates for the army. Such, however, is far from having been the case. Whilst agreeing generally, as we have said, with the suggestions and recommendations of the Commissioners, we think that the time has come for attempting to devise some larger and more comprehensive scheme than that which they have foreshadowed.

ASYLUM DYSENTERY.[1]

IT has become almost the custom to look upon dysentery as a tropical disease. Yet it is known that a disease which is identical in its clinical and pathological aspects with dysentery occurs more or less throughout Europe, and in past ages well-characterised epidemics of a wholesale kind have raged from time to time in temperate climates. Sometimes these have been limited to institutions, as was a well-known outbreak at the Millbank Penitentiary, and sometimes the disease has occurred with no such local associations. The word "dysentery" has also been employed to designate the disease which is recognised to occur in the lunatic asylums of this country and which is characterised anatomically by inflammatory lesions of the large intestine—colitis. The report issued on this subject by Dr. Mott and Dr. Durham will be found most comprehensive and complete. In an introduction the authors draw attention to the synonyms which have been employed to designate this condition and state their reasons for adhering to the term "dysentery." There certainly seems to be much scope for enlargement of our knowledge concerning the nature, causation, and distribution of dysentery in the tropical zone; but, as Dr. Mott and Dr. Durham point out, so far as the clinical and pathological accounts go there does not appear to be any essential difference between the dysentery of the warmer and that of the cooler climates, though on the whole the type of disease in the tropics may be more severe owing to the condition of the subject, the likelihood of complication with malaria, and the supervention of secondary infections and complications. The authors of the report, therefore, have acted wisely in retaining the term "dysentery" as applied to the disease the outbreaks of which they investigated, and we agree with them that until the exact nature is known of the essential cause in different countries medical men are not in a position to dogmatise as to what is and what is not properly called "dysentery." But it seems probable that such distinctive and similar lesions of the colon as are found in this country and in the tropics must be determined either by identical or by very closely allied agents. It is hardly credible that the same disease should be caused by amœbæ in one place, by a micrococcus in another, and by a variety of colon-like bacilli in others. In conducting their inquiry Dr. Mott and Dr. Durham necessarily had to rely much on the coöperation of the officers and staffs of the asylums, and they express their appreciation of the manner in which they were assisted. The main brunt of the attacks fell upon Hanwell, Colney Hatch, and Claybury. The authors had to rely upon a system of notification which they instituted. Much valuable information has thus been acquired, although they admit that the time during which the system has been in force is far too short for its result to become obvious. But future workers in this field of observation will reap the advantage.

A good account is given of the clinical and anatomical aspects of dysentery as seen in the asylums, and the diagnosis is carefully discussed. Considerable difficulty is often experienced in coming to a conclusion as to the nature of the complaint during life. In many cases the signs are not well marked. Beyond certain abnormal characters of the stools it is difficult to distinguish dysentery from simple diarrhœa. There are no sufficiently definite febrile periods or characteristic conditions of the tongue, skin, &c., and owing to the class of patient questions as to the existence of abdominal pain and the like cannot be put with any useful result. The mainstay of diagnosis consists, in short, in the observation of blood and slime in the stool, but there is no constancy in the composition of the fæcal material. The remarks on the etiology of the disease are most interesting. The authors arrive at the conclusion that it is possible that dysentery may be conveyed by means of the air, but they were unable to elicit any positive evidence that this does occur. Again, so far as the evidence obtained goes, it appears to exonerate the water-supply as the means of spread of dysentery, although this statement is open to certain reservations which are explained in the report. There was likewise no evidence that suggested the implication of the milk-supply. With regard to the water-supply also, if such a common source were at the root of the evil a far more extensive explosion of the disease would have been probable. The section of the report headed "Defective Sanitary Arrangements" affords interesting reading. There are evidently several matters deserving the attention of the authorities, although the outbreaks of dysentery could not be directly assigned to such defects. At Claybury there is an irrigation overflow, by means of which vegetable produce, such as salad and celery (both are eaten in an uncooked condition), are irrigated with raw and unscreened, untreated sewage. An examination of the effluent at a time when it had just been poured over a bed of lettuces showed not only that every cubic centimetre contained more than 1,500,000 bacteria, but abundant unaltered fæces were also present, suggesting that most of the bacteria were of fæcal origin. This amateur sewage treatment on asylum premises is unhesitatingly condemned by the authors of this report.

Another point that rightly receives censure is "imperfectly-regulated personal cleanliness." So far as the authors could ascertain, the rules in all the asylums lay down that there should be washing on rising every morning and a weekly bath when the condition of the patients admits. After the morning wash no further ablutions are compulsory until the following morning. Further, in some cases the lavatories are locked up after the morning ablutions until the next day, so that ordinary cleanliness would seem to be a matter of difficulty. A marked example of the possible danger of such a custom is instanced. In a ward where it had been

[1] Report of Drs. Mott and Durham on Colitis or Asylum Dysentery. Presented to the London County Council May, 1900, and printed for circulation March, 1901.

admitted that patients might have to assist in dealing with a certain diarrhœa case the ward lavatory was locked and the assistants would then have to go to the slop-sink to wash their hands, and whilst Dr. Mott and Dr. Durham were in the ward the excrement of a known case of dysentery was disposed of down the same sink. Such a procedure is deserving of severe censure. It is probable, however, that in most wards the attendants are much more careful. The wards of the asylums are in many instances overcrowded, and the evidence distinctly showed that overcrowding and dysentery are associated. Extraordinary as it may seem, the authors of the report found that there was no provision in Claybury, Colney Hatch, or Hanwell Asylums for the isolation of infective disorders. Although buildings are provided for the purpose they are not available, seeing that they are filled up with ordinary chronic lunatics.

A somewhat grave indictment is found under the heading "On the Occurrence of Dysentery in the Asylums in Previous Years." No satisfactory records have been kept of the various outbreaks of dysentery that have occurred, and apparently but little effort has been made to check its spread. For instance, in the Claybury Asylum a severe outbreak of dysentery occurred in 1896, yet the disease has continued in the asylum ever since without any special attempt being made to take precautions to stamp it out, nor has any systematic record been kept as to the extent to which it has occurred. These matters demand immediate action on the part of the authorities who are responsible for the management of the asylums, and they will do well to give heed to the recommendations laid down in the report now under consideration. Dr. Mott and Dr. Durham offer certain suggestions which, if carried out, would do much towards stamping out the disease and improving the health of the inmates of the asylums mentioned in the report.

The authors may be congratulated on the results of their labours. In addition to the actual report data are given of the various visits made to the asylums, and of the conditions which existed in each as to arrangement of wards, lavatories, &c., and "tabulations of cases of dysentery and diarrhœa reported," are furnished. The whole volume is full of interest and we trust that the result of its publication will be a better knowledge of the nature of the disease and greater precautions against its spread. The London County Council have never shown themselves more alive to their great responsibilities than when they appointed an official pathologist to help them in their asylum work, and their public spirit in printing this report should certainly be rewarded by an improved condition of the health of the lunatics under their charge.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

ELECTION OF PRESIDENT.

AN extraordinary meeting of the Comitia was held on Monday, April 1st, Sir WILLIAM SELBY CHURCH, the President, being in the chair.

The PRESIDENT read the gracious reply from His Majesty the King to the loyal address of the College which has already been published in our columns.

The PRESIDENT then delivered the annual address in which he reviewed the work accomplished by the College during the preceding year. The various communications that had been received from the Government, the royal distinctions that had been conferred on certain Fellows of the College, and the medals and prizes which had been awarded were duly referred to, as well as were numerous other matters which had from time to time engaged the attention of the College. Especial reference was made to the new conditions under which the University of London now exists. The President then read brief notices of the Fellows of the College who had died during the past year—namely, Sir William Overend Priestley, Dr. Nicholas Tyacke, Dr. Daniel John Leech, Sir Henry Wentworth Acland, Dr. Dennis Embleton, Dr. John Cockle, and Dr. John Baptiste Potter.

Dr. PAVY proposed and the Second Censor (Dr. C. T. WILLIAMS) seconded a vote of thanks to the President for his address, including a request that it should be published. This was carried. The PRESIDENT having thanked the College vacated the chair. The Registrar (Dr. E. LIVEING) having read the by-laws relating to the occasion, the election of President took place. The result was declared to be as follows: Sir W. S. Church, 94 votes; Sir W. Broadbent, three. Five voting papers were blank.

Sir William Selby Church was then declared to have been elected. The charge was delivered by the Senior Censor (Dr. W. Cayley) and the President pledged his faith to the College and thanked the Fellows for again electing him.

The President and Sir Dyce Duckworth were nominated by the College officers as delegates to attend the celebration of the ninth jubilee of the University of Glasgow.

The following communications were received. From the secretary of the Royal College of Surgeons of England reporting certain proceedings of the Council on Feb. 7th and March 14th last. From the General Medical Council announcing the expiration, on May 14th, 1901, of the appointment of Sir Dyce Duckworth as representative of the College in that Council. A letter was also read from Sir Dyce Duckworth resigning his position as that representative. The SECOND CENSOR proposed, and Dr. PYE-SMITH seconded, a vote of thanks to Sir Dyce Duckworth for his services. This was carried with acclamation.

A report was received and adopted from the Committee of Management, dated Feb. 25th, 1901. Amongst other matters the report set forth the new regulations of the General Medical Council for Diplomas in Public Health, and recommended that the Croydon Borough Hospital should be added to the list of fever hospitals recognised by the College.

Certain alterations in the by-laws were also announced as follows:—

The REGISTRAR moved that By-law CXXXVI. be amended and re-enacted for the second time as follows, to render it conformable to the regulations of the Conjoint Board, the alteration consisting in the addition of the words printed in italics:—

A candidate shall not be admitted to the Third or Final Examination till the expiration of Five Winter and Five Summer Sessions from the Date of Registration as a Medical Student, *and of Four Winter and Four Summer Sessions after Passing Parts I. and III. of the First Examination*, and of Two Winter and Two Summer Sessions after passing the Second Examination.

This was carried.

The REGISTRAR moved that By-law CXLV. be amended by the omission of the words printed in italics in the copy below to make it conformable to the regulations of the Conjoint Board and re-enacted for the first time.

BY-LAW CXLV.

Any Member of a Scottish or Irish University *where it is required that no less than two of the five years' curriculum of professional education shall have been spent in residence at the University*, who shall have passed such an Examination or Examinations at his University as shall comprise the subjects of the First and Second Examinations of the College, and who shall have completed the curriculum of medical study required by the Regulations of his University shall, two years after having passed all the other required Examinations, be eligible, on payment of the requisite Fees, for admission to the Third or Final Examination.

The PRESIDENT then dissolved the Comitia.

ASYLUM REPORTS.

Hereford County and City Asylum, Burghill (Annual Report for 1899).—The average number of patients resident during the year was 367 and comprised 171 males and 196 females. The admissions during the year consisted of 75 patients—viz., 41 males and 34 females. Fifty of the patients admitted were first admissions, the rest being re-admissions. Mr. C. S. Morrison, the medical superintendent, states in his report that of the admissions 57 per cent. of males and 54 per cent. of females were over 60 years of age, "an age at which the climacteric in the life of the individual is attained and a period when slight causes operating to disturb the state of health render the return to health precarious and difficult of attainment." It is pointed out that many cases of senile mental decay certified as insane and brought to the asylum would, with a little care and supervision, be more suitable for the workhouse, and it is suggested that it would be well if some provision were made in the Poor-law by which such cases should be assigned to the workhouse instead of placing them "under the same expensive hospital conditions in which the acute and recent cases are properly placed." Mr. Morrison suggests a procedure to meet these ends—viz., that the certificate of the

medical superintendent of the asylum to the effect "that the mental alienation (of a patient admitted) does not come within the meaning and definition of the Lunacy Act" might be made sufficient to secure the removal of the person to the workhouse. Any tendency on the part of the asylum superintendents to transfer too readily a case from the care of an asylum would be adequately met by the provision that the certificate was to be given in consultation with a duly appointed local medical practitioner unassociated with either institution, asylum or workhouse. "This is a subject worthy of serious consideration by the State, in view of the ever-increasing burdens placed on the tax- and rate-payers." At present asylums are converted into "dumping grounds for all mental defectives, whether idiots, imbeciles, epileptics, senile dements, or cases of actual insanity, and the special needs of each class are in consequence neglected or only partially met." Mr. Morrison points out that in some patients there exist "germs of a diseased egoism in such a type which readily assimilates the cult of destructive anarchism," and that such patients may, under suitable conditions, be propagators of a progeny dangerous and unprofitable to the community. During the year 26 patients were discharged as recovered, or 7 per cent. of the average number resident. The deaths during the year amounted to 34—viz., 21 males and 13 females, or 9·2 per cent. of the average number resident. Among the deaths two were due to chronic renal disease, four to epilepsy, four to phthisis, five to general paralysis, and 15 to atrophy of the brain. Two inquests were held during the year and the verdict in each case was that of "Death from natural causes." "A higher recovery-rate and an increased death-rate, with what may be termed a normal average admission-rate, is accountable for the net decrease in the numbers shown in the statistics of the year." The asylum was visited by two severe epidemics of influenza, with the result that a considerable number both of the patients and of the staff was attacked. The absence of an isolation block for infectious cases is severely felt, patients affected by the influenza being scattered in wards throughout the building and thus directly infecting others and causing its dissemination. The same difficulty was experienced in treating an outbreak of facial erysipelas among the patients. Active measures were adopted to stamp out tuberculosis among the cows on the farm and they were attended with complete success.

Dundee Royal Asylum (Annual Report for 1899).—The average number of patients resident during the year amounted to 411 and comprised 172 males and 239 females. During the year 105 cases were admitted—viz., 49 males and 56 females. Of these 22—viz., 10 males and 12 females—were not first admissions. Dr. James Rorie, the medical superintendent, states in his report that the number of private patients continues steadily to increase. The number of cases discharged as recovered during the year amounted to 46—viz., 18 males and 28 females, or 11·1 per cent. of the average number resident. The deaths during the year amounted to 41—viz., 16 males and 25 females, or 9·9 per cent. as calculated on the same basis. "The physical condition of the patients on admission has been very similar to that of former years. The forms of mental illness of those admitted do not show any departure from the records of previous years worthy of notice." Among the causes of insanity in the persons admitted there were previous attacks in 27 cases, alcoholic intemperance in 18 cases, mental anxiety, worry, and overwork in 16 cases, old age in 14 cases, and heredity in 14 cases; 13 cases were the outcome of frail physical health. Of the deaths during the year five were due to phthisis, 10 to senile decay, and 10 to general paralysis of the insane. The building for private patients is nearly completed, and when finished will not only supply a want that has been much felt in the past but will put the institution in a position "to meet any demand that may be made upon it for years to come for the admission of patients of whatever class or social position." To make the building complete a separate chapel has still to be erected, the religious services at present being conducted in the largest day-room on the female side of the house. This can, however, only accommodate about 180 persons, while fully two-thirds of the patients could be present were a proper building provided. The committee of management recently desired to raise slightly the charge of maintenance per head for pauper patients and submitted proposals accordingly to the General Lunacy Board who intimated their decision that 12*s.* 6*d.* per week should be the rate chargeable per head for pauper patients. The Lunacy Commissioners in their report speak favourably of the management of the institution and of the general comfort and appearance of the patients.

Warwick County Lunatic Asylum (Annual Report for 1899).—The average number of patients resident during the year was 964 and comprised 396 males and 568 females. During the year 226 patients were admitted and of these 181 were first admissions, comprising 89 males and 92 females. Dr. Alfred Miller, the medical superintendent, states in his report that 87 of the patients (all females) were chargeable to the County of London. The number of admissions was about the same as in the previous year, and included among them were the following cases: idiots 17, epileptics 10, general paralytics 9, and chronic maniacs and dements 51. Three cases were found not insane on admission, "one was an alcoholic vagrant, a type that often finds a temporary home in an asylum. A second presented some slight signs of mental aberration but not sufficient to justify detention. ..... The third in this category was a girl who might possibly be considered to belong to the type of moral insanity. She remained for some weeks under close observation. Finally, we came to the conclusion that we were not justified in detaining her as her actions and conduct seemed to be simply that of a cunning and crafty criminal." The patients discharged as recovered during the year amounted to 84, of which 44 were males and 40 females, or 21·5 per cent. on the average number resident. The deaths during the year amounted to 96, being 48 of each sex, or 24·2 per cent. of the average number resident. Of the deaths four were due to senile decay, six to epilepsy, 11 to cerebral apoplexy, 13 to cardio-valvular disease, 14 to general paralysis of the insane, 16 to pneumonia, and 17 to pulmonary phthisis. There were no deaths from violence during the year. Referring to the excessive death-rate from phthisis due to such conditions as overcrowding, deficiency of fat-forming foods, and the low vitality of chronic insane patients, Dr. Miller observes that "in former days we had (in this asylum) overcrowding to a great extent, we had a system of drainage of most defective character, and our ventilation system required a great deal to make it efficient." Notwithstanding improvements in drainage and ventilation an excessive mortality from phthisis still exists. Recently, therefore, provisions were urged and plans were submitted for an isolation block for phthisical patients designed to accommodate 24 patients, 12 of each sex, and the hope is expressed that the "necessary powers will soon be obtained from the county council to carry out the work." The desirability of a joint pathological laboratory for the midland counties is referred to and the hope is expressed that the new Lunacy Bill, which will allow for such a provision being undertaken by two or more joint counties, will soon become law. Owing to the need for the services of the reservists the staff on the male side was very much disorganised, 11 men having been called out. The farm continued to be in good condition, the supply of meat and vegetables being more plentiful than in former years. The Lunacy Commissioners in their report state that the case-books and medical records are properly kept and that the former are illustrated by good photographs.

BRISTOL EYE DISPENSARY.—The annual meeting of the subscribers to this institution was held on April 2nd under the presidency of Mr. P. J. Worsley. The medical report showed that 1776 patients had been treated, as compared with 1762 in the previous year. The financial statement was satisfactory. The committee regretted the death of the honorary treasurer, Dr. J. E. Prichard, who for the past 15 years had also assisted in the out-patient department of the dispensary.

VACCINATION PROSECUTIONS.—At the East Kerrier (Cornwall) Police-court on March 27th a tradesman was summoned for neglecting to have his child vaccinated. Defendant stated that his mother lived in a house adjoining his and the public vaccinator called there and did not make the offer to vaccinate the child to himself or to his wife. The case was dismissed. A farmer was also summoned for the same cause and said that he objected to vaccination as he had lost three children through it. The chairman remarked that the defendant must be under a great misapprehension in thinking that his children died owing to vaccination and made an order for the vaccination of the child.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Erdington Urban District.—Dr. Bostock Hill, in dealing with the question of isolation, refers to the fact that a large number of enteric fever patients were removed during 1900 from Birmingham and Aston to the workhouse infirmary. It appears that patients thus removed have been instrumental on more than one occasion in conveying enteric fever to other persons in the infirmary, and Dr. Hill suggests that it is very undesirable that enteric fever patients should be brought from outside the district into the workhouse. He observes that views as to the infectivity of enteric fever have undergone a considerable change within recent years, and there are many medical officers of health who condemn the practice of treating cases of this disease in the ordinary wards of a general hospital. Erdington would appear to possess no isolation hospital of its own, but the council has an arrangement with Aston for the isolation of scarlet fever and small-pox. Dr. Hill urges his district council to provide accommodation both for enteric fever and diphtheria.

Ormesby Urban District.—The medical officer of health of this district has done some good work during 1900 by inspecting the condition of the farms under his jurisdiction. The details of the inspection do not form pleasant reading and it is obvious that the administration of the local authority in this matter has been very slack. We are told that "for many years the same farms have been complained of, but almost nothing done to comply with notices served, or else the work has been commenced and afterwards allowed to drop altogether." In the detailed report we read of insufficient cubic space for the cows, of dung-heaps near bedroom windows, and of water-supplies unfit for domestic use. Both the farmhouses and the farmyards appear to be frequently in a deplorable condition and it is difficult to understand how anything approaching a pure milk-supply can proceed therefrom. We trust that the medical officer of health will be supported in his endeavour to obtain improvement.

Aldershot Urban District Council.—This district council have recently provided a laboratory for the analysis of water and for bacteriological diagnosis. As Dr. Thomas Dunlop, the medical officer of health, observes, this provision saves both expense and time, and the latter element especially is of vast importance in diphtheria, wherein the early treatment by antitoxin may just turn the balance between life and death. In the matter of the health of cows we are glad to see that the Aldershot cowkeepers appreciate the value of fresh air and that even during the winter months the cows are turned out for a certain time each day. The Aldershot District Council have provided some capital filter-beds, both primary and secondary, composed of clinkers of different sizes. The primary beds are apparently "contact" ones, while in the secondary beds the flow of sewage is continuous. We believe that the district council have taken much trouble in arriving at the method of sewage disposal best suited to their sewage, and it is therefore gratifying to learn that the method now in vogue has enabled the cost of chemicals, as used in chemical precipitation, to be saved and to be expended in the construction of new filter-beds.

Teignmouth Urban District.—Dr. F. C. H. Piggott reports that the attempt to introduce a scheme of voluntary notification of phthisis in Teignmouth has not met with much success although a fee of 2*s.* 6*d.* was offered by the district council. There were but two medical men in the district who undertook, *subject to the patient's consent*, to notify cases of phthisis. No notifications were, however, received. The registrar of deaths was also asked to inform the sanitary authority of every death registered from phthisis, but no information in this sense was received from the registrar. Dr. Piggott advises that a further effort be made to bring about a better state of local feeling on the subject. But the experience is of interest in relation to the general problem of notification. Teignmouth is still without the means of efficiently disinfecting infected clothing and bedding, and it is well that visitors to Teignmouth should be aware of this fact. Apparently the district council proposed to erect a disinfecting apparatus on the top of the sewage tank and the Local Government Board have, very naturally it seems to us, taken exception to the site. The surveyor reports that additional water is needed for the district and the council are said to be considering the question.

Greenock Urban District.—Dr. James Wallace in furnishing the figures for the mortality from phthisis and other tuberculous diseases in Greenock attributes the decrease which has taken place since 1875 to what he terms the "general sanitary operations" which have been operative since that date rather than to any of the measures proposed of late. By this latter expression we infer that Dr. Wallace is somewhat sceptical as to the value of notification, isolation, and spittoons, as also of the recent efforts to detect the tuberculous udder and to render the milk drawn therefrom unavailable for human consumption. Dr. Wallace places in the first rank of the necessary measures the endeavour to prevent the *predisposition* to the disease by means of the reduction of overcrowding and by rendering the houses of the poor more fit for human habitation. Certainly, whatever views may be held as regards the importance of predisposition, the steps suggested can hardly fail to have a considerable influence upon the reduction of the disease.

The Borough of St. Marylebone.—Mr. Wynter Blyth, in his report for February, expresses his opinion upon certain of the water regulations recently brought forward by the metropolitan water companies, and he does this upon the assumption that such regulations may be re-introduced at a future date. With the attempt to limit the capacity of the flushing cistern to two gallons he has no sympathy; he regards it as entirely wrong in principle and urges that if a water company is allowed to dictate the amount of water necessary for this purpose—an amount which varies with the type of closet—the next step may be to dictate the amount of water to be allowed for personal ablution. With respect to the proposed provision of sufficient storage accommodation Mr. Blyth estimates that in this district an expenditure of at least £20 per house would have been required, and he sees no sufficient hygienic advantage to be derived therefrom. He thinks that it would have been a wiser course on the part of the companies had they protected themselves against wilful waste by adopting the meter system.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In 33 of the largest English towns 6593 births and 4341 deaths were registered during the week ending April 6th. The annual rate of mortality in these towns, which had been 18·4 and 19·7 per 1000 in the two preceding weeks, declined again last week to 19·2. In London the death-rate was 17·6 per 1000, while it averaged 20·2 per 1000 in the 32 provincial towns. The lowest death-rates in these towns were 9·7 in Croydon, 11·8 in Birkenhead, 12·5 in Brighton, and 13·6 in West Ham; the highest rates were 24·3 in Manchester, 24·7 in Salford, 24·8 in Wolverhampton, and 27·7 in Liverpool. The 4341 deaths in these towns included 380 which were referred to the principal zymotic diseases, against 356 and 427 in the two preceding weeks; of these 109 resulted from whooping-cough, 105 from measles, 64 from diphtheria, 41 from diarrhœal diseases, 39 from scarlet fever, and 22 from "fever" (principally enteric). No death from any of these diseases occurred last week in Croydon, in Brighton, or in Norwich; in the other towns they caused the lowest death-rates in Plymouth and in Huddersfield, and the highest rates in Liverpool, Sheffield, Sunderland, and Gateshead. The greatest proportional mortality from measles was registered in Liverpool, Bolton, Sunderland, and Gateshead; from scarlet fever in Blackburn; from whooping-cough in Bristol, Swansea, Wolverhampton, Derby, Sunderland, and Gateshead; from "fever" in Halifax; and from diarrhœal diseases in Halifax. The 64 deaths from diphtheria included 21 in London, eight in Sheffield, four in Leicester, and four in Salford. No fatal case of small-pox was registered either in London or in any of the 32 large provincial towns; and no small-pox patients remained under treatment in any of the Metropolitan Asylums hospitals on Saturday, April 6th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the

week was 1572, against numbers declining from 2535 to 1568 on the 13 preceding Saturdays; 160 new cases were admitted during the week, against 130, 151, and 167, in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 332 and 363 in the two preceding weeks, declined again last week to 360, and were 51 below the corrected average. The causes of 66, or 1·3 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Salford, Oldham, Leeds, Newcastle, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Blackburn, Halifax, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·1 and 21·6 per 1000 in the two preceding weeks, further rose to 24·1 during the week ending April 6th, and showed an excess of 4·9 per 1000 over the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 13·1 in Leith and 20·8 in Edinburgh to 28·7 in Greenock and 29·1 in Paisley. The 757 deaths in these towns included 57 which were referred to whooping-cough, 16 to measles, eight to diphtheria, eight to diarrhœa, six to "fever," five to small-pox, and two to scarlet fever. In all, 102 deaths resulted from these principal zymotic diseases, against 87 and 93 in the two preceding weeks. These 102 deaths were equal to an annual rate of 3·3 per 1000, which was 1·6 per 1000 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of whooping-cough, which had declined from 67 to 36 in the five preceding weeks, rose again last week to 57, of which 31 occurred in Glasgow, 13 in Edinburgh, and 10 in Dundee. The deaths from measles, which had been eight and 17 in the two preceding weeks, declined again to 16 last week, and included eight in Edinburgh, three in Leith, and two in Glasgow. The fatal cases of diphtheria, which had been seven and six in the two preceding weeks, rose again last week to eight, of which five were registered in Glasgow and three in Edinburgh. The deaths from diarrhœa, which had been 15 and 16 in the two preceding weeks, declined again to eight last week and included five in Glasgow. The fatal cases of "fever," which had been six and four in the two preceding weeks, rose again last week to six, of which four occurred in Glasgow and two in Greenock. The deaths from small-pox, which had been 24, 11, and 10 in the three preceding weeks, further declined to five last week, and were all recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 126 and 127 in the two preceding weeks, further rose last week to 150, but were slightly below the number in the corresponding period of last year. The causes of 44, or nearly 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 36·6 and 34·0 per 1000 in the two preceding weeks, further declined to 31·9 during the week ending April 6th. During the past four weeks the death-rate in the city has averaged 34·3 per 1000, the rates during the same period being 17·9 in London and 22·7 in Edinburgh. The 212 deaths of persons belonging to Dublin registered during the week under notice were 14 less than the number in the preceding week, and included 12 which were referred to the principal zymotic diseases, against 15 and 14 in the two preceding weeks; of these, 5 resulted from whooping cough, four from "fever," two from diphtheria, and one from diarrhœa. These 12 deaths were equal to an annual rate of 1·8 per 1000, the zymotic death-rates during the same period being 1·6 in London and 4·4 in Edinburgh. The fatal cases of whooping-cough, which had been 11·7 and 0 in the three preceding weeks, rose again to five last week. The deaths referred to different forms of "fever," which had been two and one in the two preceding weeks, rose again last week to four. The 212 deaths in Dublin last week included 29 of children under one year of age and 58 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons corresponded with the respective numbers in the preceding week. No inquest case was registered, but four deaths from violence occurred; and 79, or more than one-third, of the deaths were recorded in public institutions. The causes of 7, or more than 3 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Surgeon Charles James Seddon Kelsall has been placed on the retired list. Surgeon Edward Butler Pickthorn has been promoted to the rank of Staff Surgeon.

The following appointments are notified:—Fleet Surgeons: I. H. Anderson to the *Duke of Wellington*, for Portsmouth Dockyard; W. R. White, R.M.L.I., Portsmouth; R. Bentham to the *President*; H. A. W. Richardson to the *Magnificent*; and R. D. White to the *Achilles*, for Malta Dockyard. Staff Surgeons: B. C. E. F. Gunn to the *Hannibal*; W. E. Home to the *Galatea*; James Bradley to the *Pyramus*; and J. R. McDonnell to the *Achilles*, for Malta Dockyard. Surgeons: M. H. Knapp to the *St. Vincent*; J. H. Pead to the *Wildfire*, temporary; J. T. M. McDougall to the *Duke of Wellington*; J. N. Robertson to the *Research*; L. Kilroy to the *Achilles*, and S. H. Facey to the *Achilles*, for Malta Dockyard.

ROYAL ARMY MEDICAL CORPS.

Major R. Caldwell assumes medical charge of troops, Station Hospital, &c., Maryhill, Glasgow. Lieutenant-Colonel D. L. Irvine has arrived in the Eastern District for duty, and assumes temporary medical charge at Bedford during the absence on sick list of Lieutenant-Colonel Poynder, r.p.

The undermentioned Civil Surgeon, serving in South Africa, to be Lieutenant: James Herbert Roche Winder.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain Robert Sinclair Smith to be Surgeon-Major.

YEOMANRY CAVALRY.

Royal 1st Devon: Murray Babington Stuart to be Surgeon-Lieutenant.

VOLUNTEER CORPS.

Artillery: 1st Cornwall (Duke of Cornwall's) (Western Division Royal Garrison Artillery): Surgeon-Major W. K. Bullmore retires with permission to retain his rank and to wear the uniform of the corps on his retirement. 1st West Riding of Yorkshire (Western Division, Royal Garrison Artillery): Percy James Sandys Bird to be Surgeon-Lieutenant. *Rifle:* 2nd Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Lieutenant D. Smart to be Surgeon-Captain. 3rd Volunteer Battalion the Duke of Wellington's (West Riding Regiment): Alexander Waugh to be Surgeon-Lieutenant. 5th (Glasgow Highland) Volunteer Battalion the Highland Light Infantry: Surgeon-Captain G. Bell Todd to be Surgeon-Major. 1st Dumbartonshire: Brigade-Surgeon-Lieutenant-Colonel P. F. Robertson resigns his commission, with permission to retain his rank and to wear the uniform of the corps on retirement, vacating at the same time the appointment of Senior Medical Officer to the Clyde Volunteer Infantry Brigade.

SOUTH AFRICAN WAR NOTES.

Major Wyatt is reported to be progressing favourably (Bloemfontein, April 3rd). Captain H. G. Martin, R.A.M.C., Captain F. McDowell, R.A.M.C., and Lieutenant Black, R.A.M.C., have been discharged from hospital to duty.

MALARIA AND MOSQUITOES IN GERMAN WEST AFRICA.

In the *Archives de Médecine et de Pharmacie Militaires* for March Dr. A. Billet briefly reviews the papers entitled "Malaria and Mosquitoes on the West Coast of Africa" which were recently published by Dr. Ziemann of the German navy as the result of his personal investigation in the Cameroon and Togo districts during a period of 16 months from March, 1899, to July, 1900. The conclusions drawn by the reviewer, seven in number, are to the following effect: 1. The mortality of the regions in question is very high, being at the rate of 9·8 per cent. for a strength of about 186 Europeans. The greater part of it is due to malaria which presents itself chiefly under the form known as tropical fever. 2. In persons who have not as yet

undergone treatment by quinine this disease assumes the malignant tertian type, being characterised by paroxysms of 24, 48, and even of 72, hours' duration, broken by remissions when the temperature falls about 2° or 2·5° F. This kind of fever, accordingly, fully deserves the name of remittent, irregular, or continued fever, in spite of the assertion of R. Koch who denies the existence of such beneath the tropics. In relapses the disease usually assumes the form of simple tertian. The hæmatozoon is constant. It presents itself under the annular form and may contain a few grains of pigment. 3. Tropical fever ought to be placed in the same group as the æstivo-autumnal fever of the Italians, the parasites, according to Koch, being identical. 4. The alleged immunity of the negro race to malaria does not in reality exist. The truth is that the blacks exhibit all the stigmata of palustral infection from their earliest infancy, splenic enlargement being one of the most common. The malarial immunity enjoyed by coloured races is merely acquired and relative. In the Cameroon district inoculation with infected blood was practised, with their own consent, on a number of negroes, the result in 71·4 per cent. of the cases being positive. 5. From a therapeutic point of view quinine remains the sovereign medicament *par excellence*, being far superior to all others, inclusive of phenocol and methylene blue. Quinine should be given during intermissions, five or six hours before the expected paroxysm. The maximum amount per diem, and also per dose, is two grammes. After the paroxysm is over the patient should take one gramme daily for three days. During the next three weeks he should take half a gramme every second day, and after that the same amount every fourth day. Half a gramme of quinine is also most suitable for prophylaxis, a procedure of which Dr. Ziemann is an ardent partisan. 6. With regard to the burning question of the transmission of malaria by mosquitoes it is well to remember that the honour of having been the first amongst German observers to demonstrate this transmission in an irrefutable manner is beyond controversy due to Dr. Ziemann. He found in the Cameroon and Togo districts four different species of anopheles of which about 30 per cent. contained the "coccidies" of malaria. Subsequently he followed up the evolution of the sexual forms of the human parasite in the stomachs of the mosquitoes and their definite transformation into these same coccidies. This evolution would seem to take place more slowly than in the Italian mosquitoes—that is, in between 10 and 16 days. There exists, moreover, in the Cameroons a species of black culex having its feet ringed with white which stings man very severely, and that not only by night but also during the daytime. It would seem that this species is equally capable with the anopheles of transmitting malaria. The biological and distinctive characteristics of the culex and the anopheles are minutely described. The larvæ of the latter develop themselves exclusively in the pools of limpid water containing green algæ which border the paths, whereas those of the culex thrive in stagnant waters of every kind. 7. In a final section Dr. Ziemann examines the question whether man is the sole intermediary host of the malarial parasite, and takes the opportunity of recalling the circumstance that long before Dionisi made his observations in Italy he had found a parasite very closely resembling those described above in the blood of various kinds of bats on the West African coast. He has, likewise, met with very nearly similar organisms in sundry smaller members of the monkey family, as well as in a chimpanzee of the French Congo. It is, however, difficult to come to a conclusion regarding the identity of these organisms with the hæmatozoon of Laveran.

SOUTH AFRICAN WAR AFFAIRS.

As it was after the Burma war and so many other wars of this and other countries so it has proved with the Boers in South Africa. It has not followed that because their forces have been routed and their strongholds have been taken that fighting has thereupon ceased. There has succeeded a stage of desultory warfare of the guerilla and maraunding type of a very trying kind, and this we seem still likely to have for some time yet in South Africa. In a vast country where there are so few houses and buildings that 50 or more miles of veldt may be traversed without seeing any except at and around the railway stations, there is plenty of room for this sort of warfare and for occasional raids on small and comparatively weak posts and on the lines of railway. Still the latest news from Lord Kitchener about the systematic sweeping of the country and the repeated capture of horses, cattle, and ammunition and stores of all kinds and the success of General Plumer's expedition to Pietersburg, must sooner or later bring things to an end. There will still remain, however, the settlement of the country and the decision as to what is to be done hereafter with the large number of prisoners at St. Helena and Ceylon. There is very little medical news, nor are we likely to obtain any from the columns in active movement in various directions throughout the country. Enteric fever is still prevalent, but to nothing like the extent that it was. Although there has been much desultory fighting the number of casualties on either side has been small. The Boers, although they harass the British troops occasionally by attacks on a small scale, very rarely make any stand. The most important medical news is that connected with the plague which, according to the telegrams reporting its progress, appears to be getting a firmer foothold in Cape Town and its vicinity. As we go to press we hear rumours to the effect that De Wet's intellect has become affected and that Louis Botha is desirous to treat for peace.

VOLUNTEER MEDICAL ASSOCIATION AMBULANCE CHALLENGE SHIELD.

This challenge shield, of the value of 200 guineas, is offered for competition by the Volunteer Medical Association to encourage ambulance training in volunteer regiments and is held for one year by the regiment winning at the annual competition. The competition is open to stretcher squads composed of certificated regimental bearers belonging to any corps in the Volunteer or Yeomanry Forces and the Honourable Artillery Company (the Volunteer Medical Staff Corps and Volunteer Infantry Brigade Bearer Companies are excluded from the competition by the terms of the trust deed under which the shield is held, and non-commissioned officers above the rank of corporal are not eligible), and takes place at Wellington Barracks on June 1st. Particulars can be obtained from J. J. de Zouche Marshall, Surgeon-Major, A.M.R., 3rd Volunteer Battalion East Surrey Regiment.

H.M.S. "BRITANNIA."

The cadets returned to H.M.S. *Britannia* after a month's absence on April 1st. A number of alterations and improvements have been made at the suggestion of the medical board recently appointed by the Admiralty. Hammocks for 25 cadets have been slung aft, thus materially extending the amount of space in the sleeping decks for each cadet.

DEATHS IN THE SERVICES.

Deputy Surgeon-General Andrew Fleming, I.M.S. (Bengal), on March 25th at Edinburgh, aged 79 years.

Correspondence.

"Audi alteram partem."

"LEGISLATION AGAINST NATIONAL INTEMPERANCE."

To the Editors of THE LANCET.

SIRS,—Dr. Archdall Reid, in his letter of April 6th to give point to his condemnation and satire of legislation against national intemperance, asks two questions. In the north we have a way of answering one question by asking another. He first asks for evidence in support of "M.D., B.S. Lond.'s" statement that "habits of intemperance in either parent tend inevitably to produce conditions which act unfavourably upon the children and interfere with the healthy development of both mind and body." Does Dr. Reid believe (with all modern medical writers on these subjects) that gout, rheumatism, and the neuropathic diathesis are hereditary conditions? If he does believe this, on what evidence has he founded his belief?—on the consensus of educated medical observation or on the recorded figures of a series of individual family histories concerning, say, five or six generations, such as would be sufficient to convince a skilled non-medical but scientific statistician? A philosophic thinker like Dr. Reid must well know that if all efforts to cure and prevent

disease were arrested until the scientific statistician was fully satisfied by figures we should probably have to wait till the next century before anything was done. He must know that in medicine a strong consensus of skilled observers, a strong probability, and hypotheses that best explain the facts have all led to successful efforts for the treatment and prevention of disease. Dr. Reid can find for himself any number of recorded family histories in which alcoholism was the main element in individual and race degeneration. I maintain that the general consensus of medical observations strongly and almost unanimously agrees with "M.D., B.S. Lond.'s" conclusions. I believe the following quotation from Dr. John Macpherson's recent admirable work on "Mental Affections" will be homologated by 99 out of every 100 members of our profession: "From such facts as the foregoing, and many others of a similar nature which might be cited, we perceive that the influence of alcoholic excess in the parents induces in their descendants a debilitated constitution, disorders of nutrition, a low resistive power, a tendency to contract infectious diseases; in short, a general neurosis or diathesis out of which may spring one or other of the numerous affections of the nervous system which depend upon disordered nutrition."

Dr. Reid's second question takes the form of a challenge "to indicate a single instance in which prohibitory laws have not been followed by increased drunkenness as well as by a general degradation of the public morals." Few of us advocate "prohibitory" laws, but many of us do strongly urge on the State to increase the control and regulation of the excessive sale of alcoholic drinks. On these lines I take up Dr. Reid's challenge. In 1833 Norway had no excise or licensing laws and the consumption of spirits then amounted to 16 litres per head of the population, drunkenness being lamentably prevalent and increasing. The effects of this on the public health and morals were so bad that the Norwegian Government passed a stringent law controlling and regulating the distilling and sale of spirits. The good effects of this legislation were at once apparent, and in 1899 only 3·3 litres of spirits per head of the population were consumed. In short, Norway as a nation has been made sober, not by religious or moral suasion, but by legislation controlling and regulating the sale of spirits. The moral state and health of the people have been enormously improved. If Dr. Reid will pardon me, I would like, with much deference, to make two suggestions. Let him carefully study the facts about alcohol and alcoholic legislation to be found in Messrs. Rowntree and Sherwell's recent work. Let him also go into a low street in London, Glasgow, or Edinburgh when the public-houses are shutting on a Saturday night and thus study the price of possible alcoholic immunity that is to come 200 years hence in his fellow creatures who emerge from those houses, and let him then accompany a few of them to their homes, taking a look at their children to see the signs of degeneration, hereditary or otherwise. If modern preventive medicine had pursued a fatalistic inertia founded on letting the doctrine of the survival of the fittest take its natural course the death-rate of Great Britain would still have been about 25 per 1000 of the living. Surely the man who uses any theoretical doctrine—of alcoholic immunity or otherwise—as a spoke in the wheel of health reform or social amelioration incurs a tremendous responsibility and should be very sure of his ground.

I am, Sirs, yours faithfully,

Edinburgh, April 8th, 1901. T. S. CLOUSTON.

THE MEDICAL PROFESSION AND THE BUDGET.

To the Editors of THE LANCET.

SIRS,—There is no doubt that the income-tax presses most heavily upon the professional classes, and of the professions to the greatest degree upon the members of the medical profession, because their lives and healths are the more precarious and exposed to the assaults of disease both by night and day. As it is well known that their expectation of life is the shortest of all the professions, consequently their productive period is also of the shortest. After a most costly education the medical man finds that his working expenses are greater than that of any other profession, that his bad debts are more numerous, and that the calls upon his charity are such that the profession to which he belongs probably contributes in value three-fourths of the vast medical charities of the kingdom.

The medical and surgical services gratuitously given to the sick poor and to those who consider themselves poor represent a pecuniary value of some millions of money—a grant in aid of the sick poor, contributed to alone by the medical profession, and by so much relieves the rates, both county and parochial, because, if it were not for medical charity this medical and surgical aid would have to be provided by the public and paid for by taxation. An argument, as shallow as it is exasperating, is always trotted out by hospital committees and lay managing secretaries on this point to the effect that the experience gained by the medical staff in working for nothing more than squares the bargain. They do not see that the same argument applies to all professions. A new judge or barrister, or Prime Minister or bishop, or managing director, in the course of the practice of their calling, obtain valuable experience—they get paid for it all the same. They are not told, as we are, that the experience and reputation attached to holding a prominent public appointment is in itself a sufficient reward and pecuniary discharge in full for value received. The public fail to see, and we are too backward in proclaiming, that experience *per se* gained in giving gratuitous medical service has no value that it would not equally possess if those services were adequately remunerated. It is necessary to emphasise this point in view of the many hospital management controversies now raging. It can be shown, therefore, that the relation of the medical profession to the public is in this way different to that of any other profession or calling, and consequently we can claim special treatment and leniency in the matter of taxation. Instead of leniency, as a body, we are exploited and practically scalped, and skinned by successive Chancellors of the Exchequer. At one of the recent Budgets one of the Chancellors actually chuckled with delight at the amount of income-tax that had been squeezed out of the medical profession and our profession was so feebly represented in the House that there was no one sufficiently instructed or articulate to explain that the exigencies of their calling prevented medical men from appealing against excessive assessment or agitating against the unequal incidence of direct and indirect taxation which pressed so heavily upon their burdened shoulders.

To condescend to particulars I would suggest: (1) that the medical man's house should be rated and assessed as a house of business; and (2) that the payments to sick and benevolent societies should rank with life assurance premiums and be deducted from income for taxation purposes.

Provision in case of sickness or poverty is as worthy of national encouragement as providing for early death—indeed, they are often linked together in one sad chain of misfortune. To obtain these slight concessions the profession must organise and become loudly vocal, and we look to the medical press to aid us powerfully to become so.

I am, Sirs, yours faithfully,

A. H. BAMPTON, M.D. R.U.I.

Ilkley-in-Wharfedale, April 10th, 1901.

"THE TEACHING OF ANÆSTHETICS."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of April 6th, p. 1041, Lieutenant-Colonel Edward Lawrie, I.M.S., complains that he has been attacked "for hampering the important question of making the teaching of anæsthetics a recognised part of the medical curriculum by introducing side issues." It cannot fail to impress the reader of his remarks that his letter emphasises the justice of the strictures which have been passed upon him when he proceeds to give an entirely imaginary description of the clinical teaching of anæsthetics in the London hospitals. As long as 11 years ago my own fellow-students were most thoroughly taught and clinically trained by Dr. F. Hewitt at Charing Cross Hospital. After a series of lectures we administered a number of anæsthetics ourselves under his supervision, were encouraged to attend as many cases as possible, and were only granted a certificate of proficiency when he was satisfied that it had been deserved.

Dr. Hewitt's teaching began long before this, and has continued on the same lines to the present day. The anæsthetists at all the London hospitals with teaching schools now follow the plan of making the students themselves administer the ether and chloroform to as many patients as is practicable, so that Lieutenant-Colonel

Lawrie's burlesque account of the facts only weakens his other unsubstantiated statements. His statistics (!) are as remarkable as the question he asks, "What is the use of calculating the ratio of deaths to population and not to the operations in which the various anæsthetics were administered?" when it is preceded by a statement that the deaths among his own dental chloroform administrations were *nil* in 15 years. Perhaps it might be permissible to inquire whether he has administered chloroform in dentistry at all, as the absence of a number of administrations might conceivably result in an absence of mortality.

"Hyderabad methods" of inducing chloroform narcosis seem to have undergone a radical change since March 20th, 1899, when, according to Lieutenant-Colonel Lawrie's book on Chloroform, a death took place during the struggling stage of anæsthesia and he laid down the law "never to give chloroform while there is struggling and irregular breathing." "Formerly"—i.e., previously to this date—he says, "there was always an element of chance, and, consequently, of risk in the administration." "Hyderabad methods," then, were not so perfect from 1892 to 1899—in fact, for those seven years it would almost have been as safe to have inhaled chloroform at the hands of a London anæsthetist—but we can hardly expect Lieutenant-Colonel Lawrie to admit anything involving so little prejudice.—I am, Sirs, yours faithfully,

H. BELLAMY GARDNER, M.R.C.S. Eng.,
L.R.C.P. Lond.,
Anæsthetist to Charing Cross Hospital; Assistant Anæsthetist to the Dental Hospital of London.

Beaumont-street, W., April 9th, 1901.

To the Editors of THE LANCET.

SIRS,—Lieutenant-Colonel E. Lawrie makes the statement that in London "there is no practical teaching in anæsthetics worthy of the name." He adds his idea of what the teaching consists and again tells us how he teaches in Hyderabad. It is perhaps a pity that before making such a sweeping statement Lieutenant-Colonel Lawrie should not have ascertained what is really taught in London. At University College Hospital the students have actual control of, and responsibility concerning, the patient from the induction to the end of narcosis, being only supervised by the authorised instructor. Careful and comprehensive notes are taken before, during, and after narcosis. I have little doubt a similar course is adopted elsewhere. The period of chloroformist clerkship is one month, which, as Lieutenant-Colonel Lawrie thinks, is more than sufficient for the average student. I am, Sirs, yours faithfully,

Mortimer-street, W. DUDLEY W. BUXTON.

"THE STATISTICS OF GASTRIC ULCER, WITH SPECIAL REFERENCE TO GASTRIC HÆMORRHAGE, ITS FREQUENCY AND FATALITY."

To the Editors of THE LANCET.

SIRS,—I fully agree with Dr. Byrom Bramwell that the questions in discussion between us are of the greatest practical importance to the profession and I feel sure that Dr. Bramwell's criticisms are advanced with the view of arriving at the real facts, which aim I also have only in view. If, however, Welch's figures, based on observations on 32,052 necropsies, cannot be allowed as a basis on which to support arguments with regard to the frequency of gastric ulcer it is useless giving any further authority, for so far as I am aware no one has made observations on anything like such a series of cases, and we can only wait for Dr. Bramwell's figures, which we shall hail with gratitude if they are based on post-mortem evidence. As to the death-rate in gastric ulcer I have not used the 50 per cent. mortality suggested by some of the authorities named, but have halved that figure, which is considerably under the mean of the extremes, and I do not think that it is an exaggerated estimate to say that 1·25 per cent. of the population die directly or indirectly as the result of gastric ulcer.

I would once and for all point out that in my paper I never said that Leeds had a population of 500,000 or referred to Leeds itself except in the following words: "Its importance will be better grasped if these figures are applied to the population of a city *like* Leeds, which for convenience I will take at 500,000"—taking the figure of 500,000 merely for convenience in working out the sums and referring to Leeds merely because its population nearly approached the number named and gave to the mind's eye a city of approximate size to the one referred to. I am quite aware that the authorities I have referred to differ in their mode of calculation as to percentages of deaths from hæmorrhage, some referring to the percentage of deaths in all ulcers and others to the percentage of deaths in those ulcers that bleed; but my own views are not indefinitely stated, as the figures quoted by Dr Bramwell from my address show. I said: "7 per cent of deaths in cases of gastrorrhagia from ulcer will not be far from the truth. If this is worked out in the 500,000 population of a city like Leeds it means that of the 25,000 persons who have or who have had ulcer, 12,500 suffer from hæmatemesis, and of these 7 per cent., or 875, die." Yet after making this quotation correctly Dr. Bramwell deliberately adopts other figures in the very next paragraph of his letter, doubling the percentage of deaths from hæmatemesis, and he then proceeds to criticise the figures which he himself is responsible for.

In order that it may be quite clear both to Dr. Bramwell and to those who are interested in the discussion I will put my figures succinctly. I argued (1) that 5 per cent. of the population suffer or have suffered from gastric ulcer, which therefore gives 25,000 in a population of 500,000; (2) that 25 per cent. of those suffering from gastric ulcer die directly or indirectly from the disease, which gives 6250 in a population of 500,000, or 1·25 per cent. of the population; (3) that 50 per cent. of cases of gastric ulcers bleed, which gives 12,500 in a population of 500,000; and (4) that 7 per cent. of cases of hæmatemesis from ulcer, or 3½ per cent. of all persons suffering from ulcer, die as the result of the bleeding, which gives 875 in a population of 500,000, or 0·175 per cent. of the whole population. So far as hæmorrhage is concerned, if these figures are worked out for a year on the basis suggested by Dr. Bramwell, that 20·05 per 1000 of the population of Leeds die annually from all causes, which means spreading the stated number of deaths over 49·87 years, or for convenience I would say 50 years, it means that in a population of 500,000 (875 ÷ 50) 17·5 patients die each year from hæmorrhage due directly or indirectly to ulcer of the stomach.

The following are the references which Dr. Bramwell asks for: Müller, quoted by Savariaud (Thèse de Paris, p. 51): "Of 127 ulcers, 37 hæmorrhages noted, of which 14 were fatal, which gives the great mortality of 11 per cent." Welch: "Pepper's System of Medicine," vol. ii. Brinton: "Treatise on Ulcer of the Stomach and Diseases of the Stomach." Debove and Rémond: "Traité des Maladies de l'Estomac, Paris." "Ulcère de l'Estomac." Also quoted by Einhorn. Steiner: "Virchow and Hirsch's Jahresbericht, 1868," p. 125. Quoted by Leube in Ziemssen's Handbuch and referred to in Savariaud's Thesis: "In 110 cases there were seven fatal hæmorrhages, which gives 6·36 per cent." Lebert, quoted by Dreschfeld: "252 cases observed, 3 per cent. fatal from hæmorrhage." Dreschfeld: "Clifford Allbutt's System of Medicine," vol. iii., p. 541. Rodman, *Philadelphia Medical Journal*, June 9th, 1900, p. 1303: "Hæmatemesis occurs in at least 50 per cent. of all cases of gastric ulcer, and many authorities estimate it as present in 80 per cent. It is, too, fatal in 8 per cent. of the cases in which it occurs, according to the conservative estimate of Leube (*Archiv für Klinische Chirurgie*, 1897), and we cannot question that it is indirectly fatal in a much greater number of cases by anæmia and its remote consequences."

Until Dr. Bramwell can furnish the profession with figures that will distinctly prove or disprove these statements I cannot see that any advantage can be derived by prolonging this discussion, for my belief in the probable accuracy of the estimates given in my original address remains quite unshaken by any of the arguments that Dr. Bramwell has advanced.

I am, Sirs, yours faithfully,

Park-square, Leeds, April 6th, 1900. A. W. MAYO ROBSON.

THE INDIAN MEDICAL PROFESSION.

To the Editors of THE LANCET.

SIRS,—I was more than surprised to see in a late issue an unjust attack by your correspondent on the natives of India. I regret that he should have been so short-sighted as to state that "the feeling in the service is that there are too

many natives in it already, and that any further concession in their interest would be undoubtedly unpopular." As a matter of fact, it is a very high average if two Indians get in perhaps in a total of between 14 and 20. At each competition the Government do their best to exclude them by holding examinations in London. Notwithstanding this Indians risk the perils of the deep, leave their hearth and home, and everything that is near and dear to them, to spend a number of years in an inhospitable climate, and spend a large sum of money on the off-chance of succeeding in a proverbially uncertain competition, and that, too, in a foreign language. Yet they are grudged the few places which they now hold. Imagine the Chinese filling most of the hospital and service appointments in Great Britain. How would the people here like to be told that the few Englishmen who wrested some appointments from the Celestials had done something which was unpopular and that "any further concession in their interest would be unpopular"? No, Sirs; the boot is on the other leg. If we are to make any complaint (which I do not make so long as a fair competitive examination is held in England and India) it is that there are too many Englishmen in the Indian Services. Your correspondent further says that the Indian degrees are "not to be compared to the British ones." Whose fault is it? No one has ever dared to say that the Indian intellect is a whit inferior to that of other nations. Therefore the fault must rest with those who mould that intellect. We want in India teachers to be recruited from all quarters, not, as is the present custom, to take them simply from the Indian Medical Service which thus enjoys a close monopoly. This system excludes some of the most brilliant amongst our profession who have no desire to go through an army medical examination. We can only appeal to fair-minded Englishmen to preserve the legitimate interest of an Englishman without robbing their Indian fellow citizens of their inalienable rights as judged by the chivalrous sense of British justice.

I am, Sirs, yours faithfully,

SARAT K. MULLICK.

New Cavendish-street, Cavendish-square, W.,
April 6th, 1901.

"THE ELIMINATION OF ARSENIC THROUGH THE HAIR."

To the Editors of THE LANCET.

SIRS,—You published in THE LANCET of April 6th, p. 1044, a letter from Dr. A. Dupré which refers to the possibility of arsenic obtaining entry into the hair through the medium of the perspiration emanating from the scalp. The fact that the experiments referred to in our article in THE LANCET of March 23rd, p. 854, were all made with recent hair, and the knowledge that our beer patients had ceased taking in arsenic for some little time previously to the samples being obtained, should be sufficient to show the unlikelihood of the hair being contaminated in this way. We may further point out, however, that the hair of all the arsenical patients was regularly washed, and that particularly in the case of the patient taking the drug medicinally this occurred every day.

Dr. George Pernet, whose letter you publish in the same issue, does not, we fear, thoroughly grasp the scope of our article. We were very careful to point out that the affinity of arsenic for the skin and its appendages is common knowledge, and we certainly made no claim to have discovered the "fact that arsenic is stored up in the hair and nails." We confirm previous observations and go a step further. We clearly show that arsenic can not only be detected in the hair of people taking the drug, but that the quantity in any given sample can be estimated with perfect accuracy by the method indicated in our paper, and further demonstrate the use which this knowledge can be put to as an aid to the diagnosis of arsenical poisoning. It is necessary that Dr. Pernet should discriminate between the value for scientific purposes of an accurate estimation of the quantity of arsenic to be found in a weighed sample of hair and the mere detection of the drug in this appendage.

We are, Sirs, yours faithfully,

E. KNECHT.
W. F. DEARDEN

Manchester, April 8th.

"THE ROYAL ORTHOPÆDIC HOSPITAL."

To the Editors of THE LANCET.

SIRS,—I am surprised that the secretary—who as an official of the hospital should, I think I am justified in saying, be publicly neutral—has obtruded himself into this matter. I am, however, glad because it enables me to acknowledge an error of information of which I might otherwise not have been aware, as I asked at the railway station for a copy of THE LANCET and could not get one. The secretary and the assistant secretary will tell you that I have always desired to be most accurate in this question of site, but unfortunately, I presume, through having read the letter without glasses, I overlooked a nought—a very important thing in figures, I admit. I have just re-read the letter and the word "sale" is not used, so I concluded that the offer was £1200 a year for leasing the Hanover-square part, as we have had several offers for leases. I readily apologise to you and all whom it may concern for that which everyone must see was a purely unintentional oversight. Obviously no one would desire to prejudice a good cause by purposely making incorrect statements. But this oversight in no way affects the real points at issue which are: (1) that £37,700 is considerably below the present value of the site; (2) that there is not the slightest necessity to part with our valuable property, which is increasing in value yearly as testified by experts; (3) that we are living rent free; (4) that partially building on our present site, even if we borrowed the money to do so, would increase the hospital's income £500 a year; and (5) that if it were necessary to do so we could rebuild the entire hospital on its present position, a magnificent one, for some £12,000, according to a letter which I read at the annual meeting in February last from a well-known firm of architects who have built another hospital. All these great advantages it is proposed to sacrifice for no sufficient reason which has yet been furnished in order to enter on a career of very uncertain future and full of grave and totally unnecessary risks. In my judgment and that of other members of the committee and several governors this is not the cautious policy which should govern so very serious a matter as the moving of a long-established hospital and the selling of its only property.

About two years ago Sir J. W. Ellis valued the site at £36,000; about a year ago two experts valued its leasehold price at £1500 a year; and at the annual meeting last year I read a letter from a well known firm of valuers stating the then value of the site to be £42,000. Since that time the value of the site has enormously increased and will increase, as proved by the fact that two years ago only £23,000 were offered and now an offer of about £10,000 more is made and accepted so far as the majority of the committee is concerned. Some two years ago the adjoining property, which is only two feet wider, sold for between £56 000 to £60 000, and shortly before that the property extending from Hanover-square to Oxford-street, facing that which is now being built on, fetched, I am informed, some £65,000 to £70 000. In view of the enormous increase in value of property in this position I think anyone caring to inquire will find that the market value of our site is from £45,000 to £50,000, and to let some £2000 a year, and its real value much greater. But as there is not the slightest compulsion to sell, as £2000 have been spent in putting the hospital into thorough sanitary condition, as from the point of view of further enhancing the value of the hospital's property we should remain where we are and for several other important reasons, we have nothing to do with market value or the highest offer. Our duty clearly is to hold our piece of land and to increase our income by rebuilding the Oxford-street portion, or to leave well alone. I should add that though the choice of a proper site for a hospital is obviously a professional matter the views of the medical staff have been ignored, and though I have repeatedly given the committee credit for doing what they think to be best—though many believe them to be grievously mistaken—they have never even hinted that I and those who agree with me have the best interests of the hospital at heart. I have been and am fighting a very difficult battle against rich men and as a consequence have made many enemies, but I am conscious that I am doing that which can be shown to be best for the hospital. I have had valuable advice from experts in accounts and in building operations and valuations, and until the arguments which I have adduced can be controverted—and hitherto

they have not been—it is my duty, I believe, to continue the contest, though I am fully aware that there are more kicks than thanks in the matter. As to the secretary's remarks about the conduct of the committee I have repeatedly stated that, if forced, I reserved the right to do that which I thought or was advised was best in the hospital's interest, and should you desire further information on this point I shall be happy to furnish it.

I am, Sirs, yours faithfully,

April 8th, 1901. THE SENIOR SURGEON.

KOVCRYNSKI AND JOWOVSKI'S TEST.

To the Editors of THE LANCET.

SIRS,—I should feel obliged if you or any of the readers of THE LANCET will tell me if they have found the above test for blood in the fæces a reliable one, and, if so, what special precautions are necessary in applying it. My reason for asking is that on two or three occasions blood was declared present in specimens submitted to this test, whilst portions of the same evacuations submitted to possibly this amongst other chemical and microscopical tests by other persons gave negative results as far as blood was concerned. The case is one of supposed duodenal ulceration with dark scybalous motions. I am, Sirs, yours faithfully,

April 9th, 1901. M.D.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Census in India.—The Plague Epidemic.—The Pasteur Institute.—The Tata Research Institute.—Victoria Scholarships to Provide Native Midwives.—Malta Fever.—Malaria Epidemics.

THE further census returns show more unexpected alterations. The Bombay Presidency has actually declined by 1,500,000. It is this province which has suffered so severely both from plague and famine. Bombay city has declined by 50,000. The proportion of males to females—about two to one—is the same as in Calcutta. During the past four years in Bombay over 100 000 people have died above the normal rate and the birth-rate has been reduced owing to the absence of females. Calcutta, on the other hand, has increased enormously, the population in the municipal area now amounting to 843,487. The suburban areas with Howrah bring the total population on the banks of the river to over 1,000,000. The city of Karachi has increased by 10,000 and shows a population of 104,856. The city of Rangoon surpasses in growth all other cities and shows an increase of over 50,000 during the past ten years. It has now 232,326 inhabitants. The census of the aborigines in the Andaman Islands has been taken for the first time. It shows a population of 24,499. Some considerable difficulty was experienced at one or two of the islands and attacks were made on the registering parties. The population is probably under-estimated.

Again this week I have to record a great rise in the plague mortality. Throughout India there were 7879 deaths. Of this heavy mortality 4524 deaths occurred in Bengal and 2070 in the Bombay Presidency. The disease has made its appearance in Kashmir, where several deaths have been reported. The deaths in the various towns and districts chiefly affected are as follows: Bombay city, 1275; Calcutta, 557; Patna, 2070; Belgaum, 223; Dharwar, 51; Thana, 96; Surat, 24; Saran, 974; Monghyr, 358; Gya, 688; Durbhanga, 126; and Shahabad, 147. In the North-West Provinces and Oudh, including the city of Benares, there were 417 deaths from plague. In Calcutta the disease is rapidly increasing and the published returns for the first two months of the year show a case-mortality of over 90 per cent. Of the total attacks about 20 per cent. were seen by the authorities during life, the remainder being estimated after inquiry as due to plague. Very few cases go to hospital—the people die in their own homes. Beyond disinfection of premises no other measures against the disease are being carried out. In Bombay city the outbreak seems to have attained its height. The death-rate of certain areas of the city is very heavy. One district gives 345 per 1000 per annum, and 11 districts are over 200. All races except Europeans show a high mortality.

The work of the Pasteur Institute at Kasauli has proved very successful. Since its opening 173 patients have been treated with results equal to those obtained at the Paris institution. There have been as patients 15 British officers and 45 soldiers and one native officer and nine men; also 27 European civilians and 73 native civilians. Many of the natives have been well-educated men.

The Tata Research Institute has had a severe rebuff in Professor Ramsay's report. Without more money the institute could not be made to the scale of the original proposals. Professor Ramsay unhesitatingly selects Bangalore as the site of the proposed institute, but expresses the opinion that unless the committee obtain a substantial addition to Mr. Tata's donation Mr. Tata would be well advised to withdraw his offer. The report is very full and considers the branches of learning to be pursued and the industries likely to be benefited as well as the financial prospects. That it would be of value if established there can be no question, and it is earnestly to be hoped therefore that the means will be forthcoming.

Lady Curzon's fund for founding Victoria scholarships which will facilitate the training of Indian midwives promises to be a success. Some of the wives of native princes and Indian ladies have supported it freely. The scheme is an excellent one and will probably have marked results in lessening the sufferings of Indian women of all classes. The mortality of women in childbed is at present great and puerperal fever is extremely common. These scholarships once founded will endure and there will be no necessity for periodical appeals.

The existence of Malta fever in India has been already alleged on several occasions. Now it has been shown to exist in the Swat Valley. An American writer has also recently stated that it is not an uncommon disease in Manila.

Malaria epidemics have been recorded at different times, but until the establishment of the mosquito theory there was no satisfactory explanation to account for them. It is suggested that an unusual rainfall in a naturally dry area creates pools in which the mosquitoes breed freely and that an epidemic of malaria is accompanied by a swarm of mosquitoes. Where the fall of rain is excessive pools and other collections of water are washed so boisterously that the breeding-grounds are destroyed and thus it is not until after the rainy season that malaria becomes prevalent. The outbreak of malarial fever in the Punjab last autumn is given by Colonel Bamber as an instance. There was an unusual rainfall last year, and notwithstanding the dry climate there is always a certain amount of malarial fever, so that when the mosquitoes had additional opportunities to breed they had material to disseminate the disease. On the other hand, normally wet places might prove more dangerous during a comparatively dry season or an unusually small rainfall.

March 15th.

The Census of India.—The Continued Famine and the Scheme for Future Relief Works.—The Epidemic of Plague.—Short Sight amongst the Natives.

The rough results of the third general census of India taken on the night of March 1st have been published with wonderful promptitude. The full totals were published a fortnight after the enumeration and they show that the population of India, including native States and territory enumerated for the first time, has increased from 287,317,048, as estimated in 1891, to 294,266,702, or 2·42 per cent. Deducting the tracts enumerated for the first time the increase is reduced to 4,233 069, or 1·49 per cent. This is a great decline from the 11·2 per cent. in the previous decennial period. There has been a diminution of 4·34 per cent. in the population of native States, which is now estimated at 63,000,000. On the other hand, the population in British India has risen by 4·44 per cent. and is now estimated at 231,000,000. The small rate of increase for India as a whole is unexpected and is attributed to successive famines and the plague. The heaviest decreases are recorded in Rajputana, Central India, and the Bombay native States which have recently suffered so severely from the famine and which are now estimated to have lost at the lowest computation no less than 5,000,000 of their inhabitants. The Bombay Presidency records a decrease of 627,000 and the Central Provinces a decrease of

nearly 1,000,000. Bengal, on the other hand, shows an increase of 3,500,000, Madras an increase of 2,500,000, and the Punjab and Burma an increase of 1,500,000 each. The following totals for the various provinces and for the native States are now published:—

INDIA.

	Males.	Females.	Total.
Ajmere-Merwara	250,721	225,609	476,330
Assam	3,142,561	2,979,640	6,122,201
Bengal	37,376,438	37,336,582	74,713,020
Berar	1,394,107	1,358,211	2,752,418
Bombay	9,595,805	8,988,691	18,584,496
Burma	4,705,094	4,516,067	9,221,161
Central Provinces	4,841,832	5,003,486	9,845,318
Coorg	100,214	80,247	180,461
Madras	18,853,024	19,355,585	38,208,609
North-west Provinces and Oudh	24,020,961	23,075,363	47,096,324
Punjab	12,095,711	10,353,773	22,449,484
Baluchistan	445,603	365,208	810,811
Andamans	18,581	5,918	24,499
Total (British India) ...	117,440,652	113,644,480	231,085,132

NATIVE STATES.

Hyderabad	5,664,772	5,510,125	11,174,897
Baroda	1,007,944	942,983	1,950,927
Mysore	2,796,165	2,742,317	5,538,482
Kashmir	1,544,412	1,361,761	2,906,173
Rajputana	5,167,640	4,673,392	9,841,032
Central India	4,357,225	4,144,658	8,501,883
Bombay States	3,504,975	3,386,716	6,891,691
Madras States	2,100,313	2,090,009	4,190,322
Central Provinces States	982,823	1,000,673	1,983,496
Bengal States	1,899,704	1,836,011	3,735,714
North-west Provinces States	411,897	387,778	799,675
Punjab States	2,417,932	2,020,884	4,438,816
Burma States	609,095	618,565	1,228,460
Total (Native States) ...	32,465,697	30,715,872	63,181,569
Total (all India)...	149,906,349	144,360,352	294,266,701

The following table shows the net increase and decrease of population, as distinguished from the percentage of increase or decrease, in the various provinces of India:—

Assam	+688,000	North-west Prov. States	+7,000
Bengal	+3,366,000	Punjab States...	+175,000
Sind	+341,000	Ajmere-Merwara	−66,000
Upper Burma	+487,000	Berar	−144,000
Lower Burma	+962,000	Bombay Proper	−627,000
Coorg	+7,000	Aden	−2,800
Madras	+2,578,000	Central Provinces ...	−938 000
North-west Provinces...	+558,000	Hyderabad	−362,000
Oudh	+233,000	Baroda	−464,000
Punjab	+1,562,000	Rajputana	−2,175,000
Mysore	+594,000	Central India States ...	−1,816,000
Kashmir	+362,000	Bombay States	−1,167,000
Madras States	+489,000	Central Provinces States	−177,000
Bengal States	+439,000		

The famine relief figures for last week show that there are still 220,400 persons on the lists, of whom 176,400 are in Bombay and 39 400 are in native States. These returns show a decrease of 3000 compared with the preceding week. A resolution of the Government recently published says that there is a general consensus of opinion that famine labour might be turned to better advantage if more systematic endeavour were made in ordinary times to plan out works which, though they may not be strictly remunerative, would at least be of some permanent utility. Great irrigation works on a larger scale are required in many districts. It is proposed to construct works, chiefly in the Punjab and Sind, calculated to irrigate nearly 4,000,000 acres. Irrigation works of a "productive" character will also be extended in the famine areas and will be commenced during the coming winter, and elaborate surveys and preliminary estimates will be prepared for future operations. It is evident that the present Viceroy is taking active steps to combat the difficulties of any future famine.

The plague figures still mount up. The number of deaths throughout India for the week ending March 16th has reached a total of 8829, against 7700 for the previous week and 4725 for last year. Bengal alone reports 4871 deaths. The disease, hitherto confined to the western districts, is spreading to others. Patna district records 2529 victims, Saran 1291, and Monghyr 431. The plague mortality in Calcutta has risen from 557 to 819, the total attacks being nearly 1000. The disease is increasing in the North-west Provinces, and is spreading in Ghazipur, Ballia, Jaunpur, and Benares, so that there is an area of large extent in the central Gangetic valley which is attacked. The area of greatest severity is shifting, and curiously the country intervening between the boundaries of Bombay and Benares is quite free. Bombay city during the past week records 2492 deaths from all causes and 1203 deaths from plague. The outbreak in that city seems to be at its height. Karachi is showing a rising mortality, and there are many more villages in the Punjab which have been recently attacked. Altogether the outlook is gloomy. So far inoculation seems to be the chief successful agency in controlling the disease, but it is not sought after. Neither in Bombay city nor in Calcutta is it being practised except to a very limited degree, but in the Patna district and in the Punjab it is being taken up readily. It is the old story of shutting the stable door after the horse has been stolen.

The subject of short sight among the natives of India has been recently commented upon by Captain Elliott. He describes the natives as preeminently a studious race and says that they carry their worship of book-learning to a fault. He states that the defects of the eye among Indian children greatly outnumber those among European children, "for not only have they the same anomalies of refraction to cope with but also the results of small-pox and various forms of ophthalmia." He thinks that India will not escape the evil which has appeared in every great centre of education in the world. This short sight increases with the age of children and is almost absent in the case of the younger pupils. Notwithstanding the improvement in schoolrooms and methods of instruction the evil even amongst the nations of the West still continues and the danger, therefore, to the Indian native from his increased book study has become serious. Captain Elliott's warning is very opportune. The increased use of glasses in India, especially by the Parsees, is a matter of daily observation.

March 23rd.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Manchester and Salford Sanitary Association.

THE annual meeting of the Manchester and Salford Sanitary Association was held on March 29th in the Townhall, Professor J. Dixon Mann being in the chair. The report dealt with lamp explosions, horse ambulance for the city, the price of gas, the proposed State Public Health Department, the proposed hospital for cases of infectious disease, cottage baths, the improvement of slums, and beer-poisoning. If the power of the association were in proportion to its zeal and goodwill in the cause of sanitation there would soon be an improvement in the public health. It is indeed remarkable how much has been done in educating public and municipal opinion with very small pecuniary support. The income last year was just a little over £140. The Smoke Abatement League—affiliated with the association—referred in its report to the recent increase in the price of gas as a retrograde step on the part of the Corporation. It checked and delayed the use of gas instead of steam as a motive power and instead of coal for heating and cooking purposes, and hence delayed the greater freedom from smoke and the more cleanly state of the air which would result. The cheapening of gas would lead to its greatly increased use by those requiring power on a small scale and a small steam-engine is a greater smoke producer in proportion to the work it can do than a large one. It would also ensure the full use of the gasworks, even though

electric lighting should become cheaper and more popular for domestic use. Salford for years has lagged behind Manchester in its efforts to lessen the smoke nuisance, but Mr. C. H. Tattersall has recently given a warning to offenders, and if the Salford Health Department should become as active in its repression as the Manchester Corporation Committee there would be more sunshine and brighter days in both these smoke-begrimed towns. Professor R. B. Wild proposed a resolution approving of the work of the association, the Smoke Abatement League, and the Ladies' Health Society which is always doing good work. This was seconded by Dr. Sawers Scott. But as towns grow rapidly, Canon Richardson did well to draw attention to the increase of "small property" in Fallowfield and Levenshulme, where, in his opinion, slums were being manufactured which would in time be as great an evil as those in the city. It is easy to make slums, even in the open country. A builder will run up a few rows of thin-walled cottages that prop each other up, in close proximity or back to back, stuck on the bare ground without drainage and with very imperfect sanitary arrangements, and the people who gravitate to such shelters will soon make them fairly entitled to be called slums. It has often been done, and in spite of building laws will no doubt be done again. Dr. Vivian Poore gave an interesting address on the sanitary advantages and disadvantages of the modern city. He advocated the burial of organic matter and said that if it were thoroughly carried out there would be fewer house flies and rats, and that "it should serve as an object-lesson to the whole country that the value of Carrington Moss had risen from 1*s.* to £2 10*s.* an acre by the addition to the soil during the last nine years of the sewage of Manchester." This is true if the word "night-soil" is used instead of sewage. Professor Dixon Mann was elected chairman of the committee and Dr. F. J. H. Coutts an honorary secretary of the association.

Views on Scarlet Fever.

In the annual report as to the health of Haslingden Dr. J. A. Harrison, the medical officer of health, has had the courage to express views which, if held by others of his brethren, are not always given to the world. He says he is of opinion that the best thing that can happen to a child is to have scarlet fever whilst it is young and when life is not of the same vital importance as after it has become a father or a mother of a family. If he has not had the disease a person may contract it, and, "as a general rule, children have it in a milder form than adults and are more likely to recover."

Workhouse Nursing.

Mr. H. Jenner-Fust, Poor-law inspector for Lancashire, Westmorland, parts of Cumberland, and the West Riding of Yorkshire, in his latest return of the number of workhouse inmates in his district under medical care at the beginning of this year, exclusive of imbeciles and epileptics in special wards, says that the increase of nurses has kept pace with the increased number of sick, but that in several instances there was great need for more night nurses and for the "lessening of the number of paupers employed under the name of attendants." In the Manchester township the patients were 1064, with 78 day and 22 night nurses in attendance. Chorlton Union had 746 and 49 day and 24 night nurses. Five day and two night nurses were in charge of 147 patients in the Prestwich Union, whilst in the Salford Union Hospital at Hope 495 patients were cared for by 31 day and 11 night nurses. The Lancashire workhouse patients at the beginning of January were 9374; the nurses numbered 744, in addition to 148 pauper assistants.

The King and the Manchester Royal Infirmary.

A letter from Whitehall was received on April 4th at the Manchester Royal Infirmary in which it was stated that the King had been pleased to accede to the application of the Board of Management that the institution be designated the Manchester Royal Infirmary, Dispensary, and Lunatic Hospital or Asylum. The letter also sets forth that the application of the board for the continuance of Royal patronage has been referred to the Keeper of His Majesty's Privy Purse.

Heaton Park.

Manchester seems to be within measurable distance of purchasing Heaton Park and when one thinks of its poverty in large open spaces as compared with many other cities and of the rapidity with which its suburbs are becoming covered with bricks and mortar one cannot but feel that it would be a calamity if the opportunity of securing it were lost. It contains about 680 acres, is elevated, its surface is undulating, and it is very near the city boundary. It is, moreover, the last open space of large extent "with any pretentions to natural beauty in the outskirts of Manchester that is still unspoiled by the builder." The corporation seems to be in earnest this time and yet when the Trafford Park fiasco comes to mind the fear will arise that after all they may let it slip. The hope expressed by Alderman Southern that "a similar mistake would not occur in this instance" will be widely echoed in Manchester. It may, perhaps, be assumed that syndicates and those through whom they act are not troubled about questions of ethics.

April 9th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The late Deputy Surgeon-General Fleming.

THE death occurred in Edinburgh on March 25th of Dr. Andrew Fleming, Deputy Surgeon-General Indian army. Dr. Fleming was the son of Dr. John Fleming, Professor of Natural Philosophy in the University of Aberdeen, and afterwards Professor of Natural Science in the New College, Edinburgh. The late Dr. Andrew Fleming obtained the degree of M.D. in Edinburgh University. When assistant surgeon of the 4th Regiment Punjab Cavalry he was recommended to the Indian Government as a geological surveyor by Sir Roderick Murchison. He drew particular notice to himself by his report on the geological structure and mineral wealth of the salt range in the Punjab, published by the Government of India 1851–52. He also contributed to our knowledge of the fossil fauna of India. On retiring from active service he took up his residence in Edinburgh. He is survived by a widow, three sons, and three daughters. His sons are all at present engaged in His Majesty's service abroad.

Glasgow University.

The half-yearly meeting of the general council of Glasgow University was held on April 3rd. On the motion to adopt an appropriate address to the King the Rev. David Macrae desired to enter a protest against the selection of the title "King Edward VII." on the ground that it implied that the six English kings of the same name had ruled over Scotland and was therefore historically inaccurate. The Principal, however, declined to accept the protest. A similar position was taken up recently at the Convention of the Royal Burghs, the objector here being Dr. Donald Munro, formerly lecturer on Forensic Medicine in the University of Glasgow. The business of the General Council on the present occasion was mainly concerned with the arts faculty. The report of the Business Committee included an elaborate argument in favour of extending more complete university recognition to modern languages. This was adopted by the council and an endeavour is to be made to secure simultaneous action in all the Scottish universities. The committee having charge of the erection of the Caird Memorial Window reported the completion of their task and announced that a balance of nearly £50 had been spent on the purchase for the library of some theological works to be especially associated with the late Principal's name. During the last week the professional examinations for degrees in medicine have been held. The completion of these has left the medical quadrangle empty. The summer session is to commence in a fortnight's time and some special arrangements of examinations and other work are contemplated in order to permit the doing of full justice to the academic ceremonies which are to celebrate the occurrence of the University's ninth jubilee.

St. Andrews University.

The annual graduation ceremony which closes the winter session took place on April 2nd. The ceremony was distinguished at the outset by the fact that the historic "cap" which formally converts the graduand into a graduate, was at the critical moment not to be found. Fortunately it was soon discovered and all then went well. The honorary graduates included Mrs. Agnes Smith Lewis and Mrs. Margaret Dunlop Gibson of Cambridge, these being the first

ladies to receive the compliment of an honorary degree from this university. Professor Alexander Agassiz of Harvard College and Professor J. A. Ewing of Cambridge also received the honorary degree of LL.D.

Small-pox in Glasgow.

The new cases of small-pox admitted during the week number 50. The total under treatment in hospital on April 7th was 234. The revaccination crusade continues to be energetically pressed and on the whole with encouraging results. The epidemic has been so wide in its distribution and the practical handling of it has presented such unusual difficulties that it is impossible to expect a sharp or sudden termination of its course. The diminution of cases in hospital shows that steady progress continues to be made. At a recent meeting of the Lunacy Board an attempt was made to suggest to the General Board that the condition of the small-pox epidemic justified the re-opening of the asylums to friends and other visitors. Dr. Bruce spoke strongly against this proposal which after discussion was negatived.

Medical Dispute at Kilmarnock.

An unfortunate dispute leading to strained relations has for some little time existed between the medical officer of health of Kilmarnock on the one hand and the Public Health Committee and sanitary inspector on the other. The medical officer has also had differences with some of his brother practitioners regarding the notification of cases of infectious disease. The whole of the questions involved have been brought to the notice of the Local Government Board and are now to be the subject of official inquiry. This is to be held in private.

April 9th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Royal College of Physicians of Ireland.

HIS Excellency the Lord Lieutenant of Ireland has accepted the invitation of the President of the Royal College of Physicians of Ireland to attend a banquet which will take place at the College on April 29th.

Lecture by Dr. Kendal Franks.

A lecture of exceptional interest was delivered on April 9th, in the town-hall, Blackrock, by Dr. Kendal Franks, the subject being "From Cape Town to Pretoria with Lord Roberts." Dr. Franks was a consulting surgeon to the forces in South Africa and a member of the headquarters staff.

Alleged Murder by a well-known Medical Practitioner.

Much unpleasant sensation has been caused in Ireland by the tragic death of the wife of Mr. Edward T. French, F.R.C.S.Irel., of Glasson, co. Westmeath. It would appear that while labouring under an attack of maniacal excitement Mr. French attacked and stabbed his wife who died after a few minutes. The verdict of the coroner's jury was that the deceased died from wounds inflicted by the prisoner while under the influence of drink. A post-mortem examination made by Mr. H. Moorhead of Moate revealed a wound between the eighth and ninth ribs which penetrated the liver and reached as far as the heart. The deceased lady belonged to a very well-known family and was popular in society and in the hunting-field. Mr. French also, who is now lodged in Mullingar gaol, is a member of a highly respectable family in the west of Ireland.

Ulster Medical Society.

At the sixth meeting of the session held in the Museum, Belfast, on April 4th, Dr. H. L. McKisack called attention to the more extensive use that might be made of the society for providing nurses for the sick poor in Belfast. Dr. J. McLlesh read notes of a case of Cyanosis, and Dr. Lorrain Smith and Dr. McKisack described a case of Plethora associated with Adherent Pericardium.

County Down Infirmary.

From the treasurer's statement it appears that the total expenditure of this infirmary for 1900 was £1537 13*s.* 6*d.* After payment of accounts there is a balance of £281 16*s.* 7*d.* There are 454 intern patients, which number, with 36 remaining over from the previous year, makes a total of 490. The average number of beds daily occupied was 34, and the average cost of each patient was 2*s.* 5½*d.* per day. The number of extern patients was 536.

Irish University Education.

At the present time the subject most commonly discussed in Ireland is that of the university question and it is felt that the whole problem has been thrown into the melting-pot by the action of the Government in appointing a Royal Commission to consider the matter. That the question is a most perplexing one is self-evident to anyone living in Ireland and already the Government must feel this, for even in reference to the Commission two points are being very freely debated: first, what are the questions to be considered? and secondly, who are to be the members? The Lord Lieutenant of Ireland, in his speech to the deputation asking for an inquiry into Irish university education, seemed to imply that Trinity College would be excluded from consideration; but this view has been received with adverse criticism, and resolutions have been sent to Lord Cadogan demanding that the affairs of Trinity College should be discussed, and, in truth, it is hard to understand how anyone can discuss university education in Ireland without referring to the Dublin University. To exclude such a subject would, indeed, make the results of the work of the Commission of very little import. Again, the question of who are to be the Commissioners must be a most difficult one. Two things are clear. They should be experts in education and they should not have committed themselves to any of the various views put forward as settlements of the Irish university question. If these matters are not attended to the labours of the Commission will, indeed, be in vain. I think that if a full inquiry is made, and if proper persons are selected as members of the Commission, a great deal of good will come out of this inquiry, and the proper attitude for all Irishmen should be to try to forget those sectarian and religious differences which have wrought so much evil in the country and to endeavour to evolve some solution of the university question which will bring contentment to the country. All parties feel that the present state of affairs is well-nigh intolerable, and the total uncertainty prevailing as to the ultimate settlement of the question is in the meantime doing incalculable harm.

Water-closets or Privies.

A curious case came before the county court judge at the Lurgan Quarter Sessions on April 1st on an appeal from the local magistrates, who at the instance of the Lurgan Urban Council ordered a citizen of that place to provide properly constructed water-closets, dry ashpits, sufficient house drainage, and gulley-trap connexions, and to tile or to concrete the yards. The points at issue were, was the substitution of water-closets—Lurgan has a splendid water-supply—for privies necessary and had the magistrates power to order such. Dr. S. Agnew (medical officer of health of Lurgan) and Sir Charles Cameron advised the substitution of water-closets and stated that the present sanitary arrangements in the houses were unsatisfactory. The latter made a remarkable statement—that "the reason why the typhoid fever rate of Belfast was higher than that of any other city or town in the United Kingdom, exceeding even Dublin, where it was mild in comparison, was the feeling against water-closets in Belfast." For the appellant, Dr. Charles O'Neill and Dr. H. R. Torrens of Belfast gave evidence that the privies were not nuisances in the particular cases referred to, nor were they, in their opinion, injurious to health. In giving judgment Judge Kisbey stated that in order to satisfy a court of appeal the onus was thrown on the respondents to satisfy the court that a nuisance existed. Therefore, going on the evidence of these Belfast gentlemen that no nuisance existed he would have to reverse the magistrate's decision. He refused costs in the case. The lesson of this judgment is that local sanitary authorities in Ireland cannot enforce the substitution of water-closets for privies. If the latter are defectively constructed or improperly kept they may enforce repairs or rearrangements, but property-owners cannot be compelled to convert privies into water-closets even in a town like Lurgan, where there is an unfailing water-supply (Lough Neagh). Evidently some change in the law is needed.

April 9th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Treatment of Sciatica by Intra-arachnoidal Injections of Small Doses of Cocaine.

AT the meeting of the Hospitals Medical Society held on March 29th M. Marie and M. Guillain communicated the details of a case in which they had employed the above treatment. The patient was a man, aged 35 years, who had suffered for the past eight days from right-sided sciatica of medium intensity for which no definite cause could be found. They gave him an intra-arachnoidal injection of five milligrammes of cocaine. Three minutes after the injection the patient felt that the pain was much diminished, and six minutes after it had entirely disappeared and nothing remained but slight traces of Lasegue's sign. The patient then and there insisted on getting up, saying that he was cured. He dressed, went out, and he walked about all day. At 4.30 P.M. the pain came back, but only in a slight degree; the patient passed a good night, and the next morning, although he had a certain amount of pain, he said that it was nothing compared to that which he had suffered the day before. The relief has persisted to the present time. M. Marie and M. Guillain reminded the meeting that at the meeting of the Neurological Society held on March 7th, M. Achard had reported three cases of sciatica treated by injections of cocaine, but the dose was from one to two centigrammes. He seemed to think that a certain amount of anæsthesia must be produced in the legs if the treatment were to be successful. In their own case the dose was much smaller and did not exceed five milligrammes; relief was rapidly brought about and no cutaneous anæsthesia was produced. If the foregoing facts definitely show that such small doses are efficacious this treatment will present manifest advantages, for there will be much less chance of those ill-effects arising which are sometimes noticed after the intra-arachnoidal injection of larger doses of cocaine.

Dramatic Representations in Lunatic Asylums.

Only recently a most interesting fête was held at the Lunatic Asylum of Villejuif. For some years past various artistes have gladly given their services for the amusement of asylum patients, but at Villejuif the asylum staff are not content with amusing the patients by the recollections which the plays call up, but they are anxious that the plays should be the work of the patients themselves. The text of the first piece given on this occasion, *L'Agence Beauminet*, was written by a patient, the music was composed by another, while the whole of the costumes, decorations, &c., were the work of *costumiers* and the like who were patients. Every player looked after his own dress, and all the players were patients. One of the medical staff was appointed to act as stage manager and to guide all these good intentions into the right paths. It could not be denied that the art exhibited was somewhat elementary, but compensation for this was found in the life and spirit of the acting. One somewhat curious fact was noted by the medical staff—namely, during the time that the minds of everyone in the asylum were fully taken up with the great event mental crises were very rare. In the case of one patient, a certain "Madame le Diable," who only a month previously had had a terrible outbreak, the wish to act and to be able to be admitted to the *troupe* was so strong that it literally cured her. The professional playwrights decided, however, that they would edit the lunatics' work.

Taxation of Medical Men Practising at Watering-places.

An interesting debate took place in the Senate on March 27th on the discussion of a taxing Bill (*loi des patentes*). An amendment standing in the names of M. Pozzi and M. Pédebidou which was accepted by the committee proposed that medical men who practised only at spas and watering-places and nowhere else should be assessed professionally (*payer l'impôt de commerce*) only in the watering-place where they practised during the season and not in the town where they lived for the rest of the year. M. Payelle, director-general of direct taxation and a Government commissary, opposed the amendment, alleging the following reasons for his action: (1) all business men are assessed not only for their business premises but also for their private residences; and (2) a watering-place practitioner who lives in Paris nine months out of the 12 spends profits there which he has easily made in the three months of his stay at the watering-place, and it is only fair that he should be taxed for the comfort and luxury in which the profits of his watering-place practice allow him to live. The Senate, however, thanks to the persevering efforts of M. Pédebidou, did not agree in this view and decided that medical men could not be considered as being in the same class with others who have to pay a *patente*. It accordingly passed the following resolution:—

As an exception to Clause 14 of the law of July 15th, 1880, the medical man who annually goes to a watering-place or to a bathing station to practise and who does not practise elsewhere is not liable to pay house tax except for the house which he occupies during the bathing season even though that house is not his chief and habitual dwelling-place.

This resolution met with the approval of every medical man, but it would be still more gratifying to see the motion put forward by M. Labbé accepted—namely, that the business tax (*l'impôt de commerce*) should not be levied except upon professional premises. It is anomalous that medical men with large families who have of necessity to have a big house should be taxed much more highly than those who live just as well and yet are able to do with quite a small flat (*petit entresol*).

April 9th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Examination for the Government Medical Service.

NEW regulations concerning the examination for the Government medical service have just been issued. Medical men desiring to enter this service may present themselves for examination either two or three years after becoming qualified, according to the place obtained by them in the State examination. They have to produce certificates of attendance at lectures on forensic medicine, of attendance at a lunatic asylum for at least six months, and of having done practical work in a dissecting room, in a public health laboratory, and in an institute for forensic medicine at a German university for at least three months. Candidates must write two theses, one on a question of public health and the other on a question of mental pathology or forensic medicine. The practical examination is divided into the following four parts. 1. Medical legislation: candidates must have a knowledge of the laws concerning public health, the regulations for the Government medical officers, &c. 2. Hygiene: candidates have to make an investigation on some matter of public health and to give a short explanation of the methods which they have employed. 3. Forensic medicine: candidates have to examine an injured person and to draw up a detailed written report; they have also to make a post-mortem examination and to give an opinion as to the cause of death; finally, they have to prepare microscopical specimens and to describe them. 4. Mental diseases: candidates have to examine an insane person and to give a certificate on the case. Obviously the new regulations will not meet with general approval, though they are in accordance with the reform of the public health service already described in THE LANCET. It is a mistake to combine the functions of health officer and medical expert at law-courts and to require from a medical man that he should have a thorough knowledge both of hygiene and of forensic medicine as well. The "reform" has, however, become law and the Government medical officers will therefore probably continue for a long time to hold this combined office.

Extension of Clinical Study in Berlin.

The newspapers report that the Minister of Public Instruction has asked the Berlin Municipal Council to consent to one of the municipal hospitals being used for the clinical teaching of medical students. When this event takes place it will mean the beginning of a revolution in clinical teaching. Hitherto official clinical lectures have been delivered exclusively in the Royal university clinics which belong to the university and are under State control, the office of the director of the clinic being invariably combined with an ordinary professorship in medicine, surgery, obstetrics, &c. It is obligatory on medical students to attend the lectures of these professors, because they alone are entitled to give the certificates which are necessary for admission to the State

examination. The number of patients attending these clinics, though considerable, is by no means sufficient for the increasing number of students and the practical work which a medical student is required to perform there according to the regulations has become little more than nominal. In the course of a semester the clinical "practicant" is asked once or twice during the clinical lectures to examine a patient in presence of the professor and the assembled students, and to answer some questions on the case. This is, so far as Berlin is concerned, the whole of the practical work for which opportunities are officially afforded by the university. Obviously this is far from sufficient for a man who intends to enter upon practice on the completion of his studies and the great majority of students have therefore tried to supplement their practical training by attendance on private practical courses. Such private courses have been in existence for a long time, not only in the university clinics but also sometimes in other hospitals and in private clinics, but they have not had any official connexion with the university. Undoubtedly the Minister of Public Instruction is quite right in trying to procure a wider field of clinical training for the Berlin students by bringing the other great hospitals into connexion with the university. The medical wards of the Moabit municipal hospital have in the first place been chosen for this purpose, and both the chief physicians of the hospital have been requested to deliver official lectures in clinical medicine to the students. As the hospital is not provided with a lecture-room it is reported that a large amphitheatre will be constructed on the premises on behalf of the university. It will be interesting to know whether the right to deliver official clinical lectures and to give certificates will be granted to the present chief physicians only or whether it will be connected with their office and thus be transferable to their successors. Similar arrangements will be made in other large hospitals, and the system of clinical teaching will probably come to resemble that of the Paris hospitals, which have always been used for clinical instruction under the control of the medical faculty of Paris.

Professor Virchow.

The eightieth birthday of Professor Virchow, the Nestor of medical science in Germany, will be celebrated this year. In honour of this event a committee consisting of the leading medical men of Germany and abroad, of other *savants*, and of men prominent in various ways, proposes to collect a fund to support the Rudolf Virchow Stiftung, an institution for the promotion of scientific research founded in 1881 on the occasion of the professor's sixtieth birthday. The document embodying the proposal has received about 600 signatures. The chairman of the executive committee is Professor Waldeyer. Of the other members Professor Fraenkel, Professor Israel, Professor Posner, Professor von Bergmann, Professor Engelmann, Professor Eulenburg, and Professor König belong to the Berlin medical faculty. The Government is represented by Dr. Althoff, Director of the office of Public Instruction, and Dr. Pistor of the medical department; the army is represented by Dr. von Coler; the city of Berlin by the mayor and the president of the town council; and anthropological science by Dr. Bartels, Professor Bastian, Dr. von den Steinen, and Dr. Voss. The committee, moreover, includes Professor von Richthofen (president of the Geographical Society), Dr. Becher (president of the Berlin Medical Chamber), and others. Foreign committees will be formed in various countries. Lord Lister will be chairman of the British committee, Professor Wilson (Sydney) of the Australian Committee, Mr. Risley (Calcutta) of the British India Committee, and Professor Scott of the New Zealand Committee.

April 8th.

DUTIES OF SCHOOL BOARD OFFICERS.—An inquest was held in Bristol recently upon the body of a boy, aged eight years. He was ill in bed with bronchitis when the school board officer called at the house, insisted on his being brought downstairs, and told him to go to school in the afternoon. The child went to school, but soon had to return home, and died the same evening. Medical evidence showed that he was not in a fit state to be sent out of doors when the officer sent him to school and that death resulted from bronchitis. The jury returned a verdict to that effect and added a rider that the school board officer had exceeded his duty.

Obituary.

HENRY ERNEST HILL SMITH, M.R.C.S. ENG., L.S.A.,

MAJOR, ROYAL ARMY MEDICAL CORPS.

MAJOR HENRY ERNEST HILL SMITH was born in the year 1861 and was the son of the late Mr. Henry Smith, one of the most distinguished London surgeons of his time. He completed his school life at Chatham House, Ramsgate, and in 1879 entered King's College Hospital, to which later he became house surgeon. He joined the Army Medical Department in 1887, being "first in and out" of Netley. Shortly after, being gazetted surgeon-captain, he applied to be put on the foreign roster and did duty at Singapore until 1891. In 1894 he was selected for service in the Egyptian Army. The commencement of the Dongola expedition in the spring of 1896 found him at Suakim where as senior medical officer he had for a year or more won golden opinions among the native population by his successful surgery. He soon was at the front at Akasheh, having crossed the desert with such of the Suakim troops as could be spared. He was with the cavalry and camel corps in the surprise of the Dervishes at Firket in June, 1896, and in the following year was senior medical officer of the flying column which, under General Hunter, seized Abu Hamad. All through the many engagements of the Soudan campaign he was senior medical officer to the mounted troops and did extraordinarily good service, receiving seven clasps to his Soudan medal and being mentioned four times in despatches; for his services in the Soudan he was specially promoted major in the English army and bey in the Egyptian army; he received also the Medjidieh decoration. As senior medical officer of the frontier he passed the greater part of the last two years of his life at Omdurman, Fashoda, and the south; he was among the first English officers to reach the Sebat river and had some excellent sport among hippopotami, elephants, giraffes, and various kinds of antelope, &c., in these hitherto practically unknown regions. He was, however, as senior medical officer of the frontier a very busy man, for epidemic diseases were very prevalent among the troops, malaria spared no one, he himself was often down with it, and was up with it more often, for he had to struggle on at times with his work when the whole of his staff were on the sick list. Among the many epidemics which he had to combat in the Soudan was a particularly fatal one of cerebro-spinal meningitis on which he wrote a valuable report which was published by the Director-General of the Army Medical Service (*vide* Report, 1898).

Major Hill Smith was a sportsman in every sense—keen, thorough in everything, he was essentially a "good all-round man." His bright, irresistible *bonhomie* was such that no one ever met him but felt the better for it—he had a sort of tonic effect; and the great charm of the man was that he was always the same, whether in cholera camp, in polo or cricket field, under fire, or nursing a sick comrade. He won the respect, the admiration, the trust, and the love of all. His sudden death subsequently to a fall from his horse in a jumping competition is the source of the greatest grief to all in Egypt who knew him. The following special army order was published by the Sirdar of the Egyptian Army:—

"War Office, Feb. 24th, 1901.

"The Sirdar announces to the Army with deep regret the death of El Kaimakam Hill Smith Bey, Medical Corps, which took place at Cairo on the 22nd instant after a few hours' illness.

"Those who were brought in contact with him during the six and a half years which he passed in His Highness's service will remember how, by his unceasing cheerfulness and unremitting care of those in his charge he endeared himself to all, and the Sirdar feels that the whole army joins with him in mourning the loss of a gallant soldier and a beloved comrade."

CHRISTOPHER MERCER DURRANT, M.D. EDIN., F.R.C.P. LOND.

ON Easter Eve, April 6th, there passed away, at the ripe old age of 86 years, Dr. Christopher Mercer Durrant, one of the oldest practitioners in the eastern counties. He was born in 1814 at Lewes, where he received his early education,

and later went to Berlin to study German, going thence to the University of Edinburgh, where in 1839 he took his M.D. degree. In the same year he married and commenced practice as a consulting physician in Ipswich. He was elected after a time physician to the East Suffolk and Ipswich Hospital, in which institution he always took the greatest interest, and his long services there are still remembered with gratitude. A serious illness in 1879 obliged him to resign his active duties in connexion with the hospital, but he continued on its staff as an honorary consulting physician. He was the first President of the East Anglian Branch of the British Medical Association in 1843 and at their jubilee meeting held at Stowmarket in 1893 additional interest was given to the gathering from the unique fact that the President of 50 years before was again by universal consent nominated to the chair. He took a warm interest in the Ipswich Nurses' Home, as well as in the Suffolk Convalescent Home at Felixstowe, in both of which institutions he served on the committee. For several years he took a room in Cox-lane, where once a week the poor of the town and district could consult him and have the benefit of his advice gratuitously. He was a J.P. for Suffolk and while health permitted was a regular attendant at the Samford bench. He has contributed several papers to the *British Medical Journal* and in 1873 he was elected Fellow of the Royal College of Physicians of London. The funeral took place on April 11th, the first part of the service being said in St. Margaret's Church, while the burial took place at Freston.

JAMES HOOPER, M.R.C.S. ENG., L.S.A.

MR. JAMES HOOPER died at his residence, Odd Down House, Odd Down, Bath, on March 27th, in his ninety-sixth year. The deceased, who was the son of the Rev. Thomas Hooper, rector of Yatton Keynell and Castle Combe, Somerset, received his education at Eton College. While there he was contemporary with Mr. Gladstone and attended the funeral of George III. He studied medicine at University College, London, and qualified as M.R.C.S. Eng. in 1841, taking the diploma of L.S.A. in the following year. Mr. Hooper was for many years in practice at Ford and was one of the district medical officers of the Chippenham Board of Guardians; he afterwards practised at Marshfield, near Bath, and was attending to some of his professional duties when 90 years of age. Mr. Hooper had a considerable reputation as a skilful surgeon and his opinion was often sought by his colleagues in the district. The deceased leaves two brothers, who are 88 and 84 years of age respectively. The funeral took place at Yatton Keynell on April 1st.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Theodor Wynen, Assistant in the Marburg Hygienic Institute, in consequence of infection contracted in the course of his work.—Dr. H. Gosse, Professor of Forensic Medicine in the University of Geneva.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—At the primary examination, held on April 1st, 3rd, and 4th, the following candidates passed in the subjects indicated:—

PART II.

Anatomy.—H. Bacon, Cambridge and Guy's Hospital; B. F. Board, Royal Free Hospital; J. M. Burke, Cork and Galway; P. Butler, Birmingham; W. R. Clarke, University College Hospital; H. M. Forsyth, Royal Free Hospital; A. F. Heald, Cambridge; H. Leach, Leeds; D. Mann, Royal Free Hospital; J. A. Renshaw, Manchester; and J. H. K. Sykes, Leeds.

Physiology.—A. J. Ambrose, Westminster Hospital; B. F. Board, Royal Free Hospital; P. Butler, Birmingham; H. M. Forsyth, Royal Free Hospital; G. P. K. Grey, Middlesex Hospital; H. Leach, Leeds; D. Mann, Royal Free Hospital; J. A. Renshaw, Manchester; J. H. K. Sykes, Leeds; and J. M. Wall, St. Thomas's Hospital.

UNIVERSITY OF GLASGOW.—The following have passed the first professional examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (B., Botany; Z., Zoology; P., Physics; and C., Chemistry):—

William Allan (P.), William Smith Allan (P., C.), Andrew Allison (Z., C.), George Victor Anderson (B., Z.), Donald Arbuckle (B., Z., C.), Andrew Hamilton Arnott (B., Z.), James Henderson Baird (Z., C.), Thomas Barbour (B., Z.), Hugh Barr (Z., P., C.), George Duncan Morrison Beaton (Z., C.), George Beattie (B.), Robert Daniels Bell, M.A. (B., P.), John Charles Bosworth (Z.), Thomas Fraser Bowie (C.), Forrest Brechin (B., P.), Charles Brown (B.), Charles Burns (B., P.), George Yuille Caldwell (P.), Donald Livingstone Carmichael (Z.), Robert Buchanan Carslaw, M.A., (B., Z.), Donald Clark (Z., C.), Andrew Donaldson Cowan (Z., C.), Robert Wilson Dale (Z., C.), Richard John Driscoll (Z., C.), Eric John Dyke (Z.), Hamilton William Dyke (Z., C.), James Fairley (Z., C.), Harry Prescot Fairlie (Z., C.), Alexander Burns Ferguson (Z., C.), Edward John Fitzgerald (B., P.), Thomas Henderson Forrest (Z., C.), Thomas Scott Forrest (B., Z.), William Gilchrist (B., P.), William Harold Gillatt (C.), Joseph Glaister (Z., P.), William Grier (Z., C.), Charles Francis Dyer Hammond (B.), James Duncan Hart (Z., C.), Frank Hauxwell (Z., C.), James Waugh Hay (P., C.), Robert M'Cowan Hill (B., Z.), Lawrence Hislop (P.), Ralph Howell (P.), James Hunter (Z., C.), Harry Stewart Hutchison (Z., C.), William Boyd Jack (Z., C.), Alexander Jamieson (P.), James Towers Kirkland (B., Z.), William Love Kirkwood (Z., C.), George Hugh Logan (Z., C.), Joseph Glaister M'Cutcheon (P.), Walter George Macdonald, M.A. (Z., C.), Duncan M'Ewan (Z., C.), Hugh Allan Macewen (Z., C.), John Macintyre (Z., C.), Milne M'Intyre (Z., P.), Charles Gordon Mackay (P.), Finlay John Mackay (B., Z.), John Henry M'Kay (Z., C.), Ronald Mackinnon (B., C.), Norman Henry William Maclaren (Z.), Roderick M'Leod (C.), William Macleod (Z.), Matthew Thompson Drummond M'Murrich (Z., C.), Hugh MacNaught (Z., C.), William Hislop Manson (Z.), Robert May (Z., C.), Henry Joseph Milligan (Z., C.), John Moffatt (B.), Macdonald Munro (P., C.), Frank Anderson Murray (P.), Patrick Joseph O'Hare (Z.), John Clegg Pickup (P., C.), Henry Sherwood Ranken (Z., C.), Cunison Deans Rankin (B., Z., P., C.), Thomas Thomson Rankin (Z., C.), John Reid (Z., C.), James Mill Renton (Z., C.), James Watson Richmond (P.), Arthur Robertson (Z., C.), John Macdonald Ross (B., Z.), Alexander Cappie Russell (Z., C.), John Cooper Russell, M.A. (Z.), Edward Louis Augustin Sieger (Z., C.), William Herman Sieger (B., Z., P., C.), James Charles Donaldson Simpson (B.), Robert Alexander Slater (B., P.), Morrison Wood Smith (C.), James Stevenson (B., Z.), Arthur Anderson Stewart (B., Z.), Daniel Stewart (Z.), John Stewart (B., P.), William Alexander Stuart (Z., C.), Joseph Roderick Sutherland (Z., C.), John Taylor (B., Z., P., C.), Thomas Thom (Z., C.), Joseph Johnston Townley (P.), William Young Turner (P., C.), William Lind Walker (C.), Alexander M'Millan Watson (C.), Thomas Macknight Watt (B., P.), William Alexander Wilson (Z.), and George Young (Z., C.).

Women—Bethia Shanks Alexander (B.), Jeannie Thomson Clark (P., C.), Katharine Robina Margaret Lucas (B.), Agnes M'Phun (P.), Elizabeth Maud M'Vail (P., C.), Florence Mann (P., C.), Jessie Emily Munro (C.), Jessie Deans Rankin, M.A. (C.), Lily Smellie (B., C.), Mary Spence (P., C.), Chrisale Gibson Thomlinson (P., C.), and Annie May Yates (B., Z.).

The following have passed the second professional examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (A., Anatomy; P., Physiology; and M., Materia Medica and Therapeutics):—

Robert Adam (A., P.), William Kirkpatrick Anderson (A., M.), John William Arthur (A., P.), Robert James Arthur (A., P., M.), Thomas Ballantyne (A.), Andrew Farm Bell (A., P.), Thomas Bennett, M.A. (A., P.), Archibald Grainger Bisset (M.), Alexander Blair (P., M.), William Thomas Bolton (A., P., M.), James Campbell Bringan (P., M.), John Brown (M.), Robert Bruce (A., P.), John Miller Hopkins Caldwell (P.), Angus Campbell (A., P.), Robert Harold Campbell (P.), Robert Peploe Cartwright (P.), John Cairns Christie (A.), Alexander Erskine Clark (A., P., M.), David William Davidson (A., P.), Hugh Collin Davies (P.), James Dick, M.A. (A.), Mitchell Innes Dick (A., P., M.), William Dick (A.), David Dickie (A., P.), Hugh M'Millan Donaldson (P.), George Horn Downie (P.), David Garfield Dykes (A., P., M.), James Eadie (A., P., M.), Cunison Charles Finlator (A., P., M.), Erle Dalrymple Gairdner (A., P.), George Garry (P.), William White George (A.), George Gordon (M.), William Harvey (A., P.), James Thompson Kelly (P.), John Muir Kelly (P., M.), Alexander Dingwall Kennedy (P.), Robert Dallas Kennedy (M.), John Kerr (P.), Robert Laurie (A., P., M.), Alexander Leggat (M.), Archibald Leitch (M.), William Jamieson Logie (A.), Thomas Walter Love (A., P.), Donald MacAulay (M.), James Duff M'Culloch (A., P., M.), Alexander Armstrong MacFarlane (M.), David Duncan Fraser MacIntyre (M.), John Matheson MacKellar (A., P., M.), Ivy M'Kenzie, M.A. (M.), Alexander Stewart M'Millan (A., P., M.), James Roy M'Vail (M.), James Anthony Macvea (A., P., M.), Andrew Alexander M'Whan (A., M.), William Main (P.), Alexander Matheson, M.A. (A., P.), Peter Millar (P., M.), Alexander John Mitchell (P.), Spencer Mort (A. P., M.), Gavin Muir (P., M.), Alexander Harper Napier (P., M.), David Penman (A., P.), Alexander M'Millan Pollock (A., P.), William Rankin, M.A. (A., P., M.), Daniel Falconer Riddell, M.A. (A., P., M.), Peter Hamilton Robertson (A., P.), Robert Clemens James Schlomka (A.), Frank Donald Scott (A., P.), William Garrow Shand (A., P., M.), Lawrence Drew Shaw (M.), John Black Stevenson (A. P.), Wm. David Henderson Stevenson, M.A. (A., P.), John Barbour Stewart (A.), William Stewart (A., P.), Arthur William Sutherland, M.A. (A., P., M.), John Wilson Sutherland (A., P., M.), Peter Lindsay Sutherland (A., P.), Joseph Walker, M.A. (A., P.), Hugh Fleming Warwick (A.), William Norman West Watson (A., P.), Robert Tait Wells, M.A. (M.), John Forrest Weston (A., P.), Joseph White, M.A., B.Sc. (M.), Griffith John Williams (A., P.), James Wilson (A., P., M.), Elcred Wright (P.), Hugh Young (A., P.), John Young, Glasgow (A., P.), and Watson Young (M.). Women—Jeanie Auld (P.), Annie M'Caig Black (P., M.),

Agnes Wallace Cameron (P.), Mary Charlotte Cameron (A., P.), Ethel Lily Chapman (P.), Jessie Galloway Duncan (A., P.), Jane Reid Foulds Gilmour (A., P.), Margaret Hardy (A., P.), Alice Wesley Maclean (P.), Mary Lauchline M'Neill (A., P.), Anna Pollock Martin (P., M.), Eliza Jane Miller (A., P.), Isabel Deane Mitchell (A., P.), Charlotte Reid Park (P.), Ethel Jane Mildred Pryce (P.), Margaret Hossack Smart (A., P.), Jessie Marie Stewart A., P.), Elizabeth Taylor Talbert (A., P.), Janet Gardner Waddell (A., P.).

The following have passed the third professional examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (P., Pathology; and M., Medical Jurisprudence and Public Health):—

William Armitage (M.), Alexander Grey Banks (P., M.), Robert Bryson (M.), George Frederick Buchan (P., M.), John James Young Campbell (P., M.), Alexander Adam Carruthers (P.), Walter Bartlett Chapman (P., M.), Ernest Hamilton Cramb (P., M.), Hugh William Crawford (P., M.), Alexander Dick (P., M.), Donald Douglas, M.A. (P.), Andrew Robertson Dow (P., M.), William Dow (P.), John Ferguson, M.A. (P., M.), Thomas Forsyth (P., M.), John Andrew Garden (P., M.), John Ritchie Gilmour (M.), John Miller Gordon (P., M.), John Guthrie (P., M.), John Andrew Hagerty (P.), Ronald Dingwall Hodge (P., M.), John Brown Dalzell Hunter (P., M.), Ernest David Jackson (P., M.), George Rutherford Jeffrey (P., M.), William Fletcher Kay (P., M.), John Kennedy (M.), Andrew Miller Kerr (P., M.), Stanley Everard Lewis (P., M.), Joseph Paterson Lusk (M.), Daniel Douglas M'Dougall, M.A. (P.), Alexander Macintyre (P., M.), John Chancellor M'Kenzie (P., M.), Thomas M'Laren (P., M.), Alexander Maclean (M.), John Maclean (P., M.), Dugald Henry MacPhail (P., M.), Richard Makins (P., M.), Robert Harry Manson (M.), Harry Somerville Martyn, M.A. (P.), Robert Menzies (P.), James Grant Millar (P., M.), Wm. Alexander Milne (P., M.), John Muir (P., M.), James Stuart Nicolson (P., M.), Robert Orr (P.), Thomas Rankine (P., M.), John Mark Reid (P.), Thomas Richmond (P., M.), David Riddell (P., M.), William Robertson (Blackwood) (P., M.), Norman Cumming Rogers (P.), James Russell (M.), Malcolm Bernard Gathorne Sinnette (P., M.), John Williamson Smith (P., M.), Robert Cassels Smith (P., M.), David Spence (P., M.), John Stevenson (P., M.), Robert Rennie Swan (P., M.), William Wagner Turner (P., M.), John Unsworth (P., M.), Thomas Irby Wallace (P., M.), Alexander Brown Watt (P., M.), Peter Millar Waugh (P., M.), David Ashley Wilson (P., M.), and John Wilson (M.). Women—Helen Stephen Baird, B.A. (P.), and Jessie Seath MacEwen (P., M.).

At the recent professional examination for the degrees of M.B., Ch.B., the following candidates passed with distinction in the subjects indicated:—

FIRST EXAMINATION.

Botany and Zoology.—Robert B. Carslaw, M.A.
Zoology and Physics.—John Taylor.
Zoology and Chemistry.—James H. Baird and Thomas Thom.
Zoology.—Walter G. Macdonald, M.A., Norman H. W. Maclaren, Matthew T. D. M'Murrich, Arthur Robertson, John M. Ross, Alexander C. Russell, and Joseph R. Sutherland.
Physics.—Elizabeth M. M'Vail.
Chemistry.—Frank Hauxwell, William L. Kirkwood, Morrison W. Smith, William Y. Turner, and George Young.

SECOND EXAMINATION.

Anatomy and Physiology.—Alexander Matheson, M.A., and William D. H. Stevenson, M.A.
Anatomy and Materia Medica and Therapeutics.—James Radie, Spencer Mort, and William G. Shand.
Physiology and Materia Medica and Therapeutics.—John W. Sutherland.
Anatomy.—Joseph Walker, M.A.
Physiology.—Robert J. Arthur and Peter L. Sutherland.
Materia Medica, and Therapeutics.—Alexander Blair, Cunison C. Finlator, and Daniel F. Riddell, M.A.

THIRD EXAMINATION.

Pathology.—John A. Garden, Ernest D. Jackson, and Andrew M. Kerr.
Medical Jurisprudence and Public Health.—George F. Buchan, William W. Turner, and Peter M. Waugh.

FOREIGN UNIVERSITY INTELLIGENCE.—*Basle:* Dr. von Herff of Halle has been appointed to the chair of Midwifery and Gynæcology.—*Berlin:* Dr. Brandenburg and Dr. Burghart have been recognised as *privat-docenten* of Internal Medicine.—*Cracow:* Dr. Maziarski has been recognised as *privat-docent* of Histology.—*Heidelberg:* Dr. Braus, prosector in the Anatomical Institute, has been appointed Extraordinary Professor.—*Leipsic:* Dr. Franz Windscheid, Director of the Policlinic for Nervous Diseases, has been appointed Extraordinary Professor. Similar promotion has been accorded to Dr. Kollman, *privat-docent* of Dermatology. Dr. Saxer has been appointed prosector.—*Munich:* Dr. A. Jesionek has been recognised as *privat-docent* in Dermatology.—*Rostock:* Dr. Körner has been appointed Ordinary Professor of Otology and Laryngology.—*Valladolid:* Dr. Quintero of Zaragosa has been appointed to the chair of Surgical Pathology.—*Würzburg:* Dr. Overton of Zürich has been appointed Extraordinary Professor of Physiology in place of Dr. Schenck who goes to Marburg.—*Zürich:* Dr. Martin has been appointed to the newly-created Extraordinary Professorship of Anthropology.

MEDICAL MAYOR. Mr. Ralph Gooding, M.D. Lond., M.R.C.S. Eng., the mayor of Greenwich, has been presented with a chain and badge of gold.

MEDICAL MAGISTRATE.—Mr. Josiah Court, L.R.C.P. Lond., M.R.C.S. Eng., of Staveley, Chesterfield, has been appointed a justice of the peace for the county of Derby.

INFANT LIFE PROTECTION ACT.—At Plymouth on March 29th a woman was summoned for having failed to give notice to the coroner of the death of an infant of whom she had the charge. The evidence showed that the child died on March 6th and a certificate of the cause of death was given by a medical man who saw the child on the previous day, death being due to diarrhœa. The defendant pleaded ignorance of the Act, but the magistrates held that it was a serious offence and she was fined 11*s.*

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL: WINTER SESSION 1900–1.—The following prizes have been awarded:—First Year's Students: L. E. C. Norbury, the William Tite scholarship, £27 10*s.*; D. K. Coutts, College prize, £20; and R. J. H. Cox, College prize, £10. Second Year's Students: H. A. Kisch, the Musgrove scholarship, £38 10*s.*; E. W. Parry, College prize, £20; and T. P. Puddicombe, College prize, £10. Fifth Year's Students: C. N. Sears (Medicine), prize, £10; C. Burrows (Surgery, including Ophthalmology), prize, £10; R. E. Roberts (Midwifery and Diseases of Women), prize, £10; W. M. G. Glanville (Pathology), the Hadden prize, £10; C. N. Sears (Pharmacology and Therapeutics), prize, £10; H. W. Sinclair (Forensic Medicine and Insanity), prize, £10; H. W. Sinclair (Public Health), prize, £10. The Wainwright prize, £10, has been awarded to W. M. G. Glanville, B.A., of Christ Church, Oxford.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following is the prize list for the winter session:—Descriptive Anatomy: Junior—1. Allaun, first prize (£3) and medal, and R. Bury, second prize (£1) and certificate; senior—J. Parker, first prize (£3) and medal, and Miss J. C. Hargrave, second prize (£1) and certificate. Practical Anatomy: First year—E. J. Clarke, first prize (£3) and medal, and R. Bury, second prize (£1) and certificate; second year—J. J. Connolly, first prize (£3) and medal, and J. S. Sheill, second prize (£1) and certificate; third year—E. C. Byrne, first prize (£3) and medal, and J. M. Moriarty, second prize (£1) and certificate. Practice of Medicine: C. W. Ewing, first prize (£3) and medal, and W. R. Ormsby, second prize (£1) and certificate. Surgery: A. Charles, first prize (£3) and medal, and W. R. Burkitt and J. P. Ziervogel (equal) second prize (cheque) and certificate. Midwifery: C. W. Ewing, first prize (£3) and medal, and Miss H. A. Hall and R. W. Burkitt (equal), second prize (cheque) and certificate. Physiology: J. J. Connolly, first prize (£3) and medal, and F. O'D. Fawcett, second prize (£1) and certificate. Chemistry: J. M'Quillan, first prize (£3) and medal, and L. A. Andrews, second prize (£1) and certificate. Pathology: A. Charles and T. A. Dillon (equal), first prize (cheque) and medal, and Miss H. A. Hall, second prize (£1) and certificate. Physics: M. B. Talbot-Crosbie, first prize (£3) and medal, and J. M. Hayes, second prize (£1) and certificate. The Schools of Surgery of the College will resume work after the Easter recess on Monday, April 15th.

PREVENTION OF CONSUMPTION.—The Marquis of Zetland presided on March 27th at a meeting of the York Branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis which was held, by the permission of the Lord Mayor, in the state-room at the Mansion House, York, when it was unanimously resolved, on the motion of Mr. E. R. Turton, J.P., seconded by Mr. Philip Saltmarshe, J.P., to institute a sanatorium for the treatment of suitable cases of consumption upon a site which had been favourably reported upon. On the motion of the Rev. F. Lawrence, honorary secretary of the Church Sanitary Association, the following resolution was adopted: "In the opinion of this meeting it is desirable that preachers, teachers, and all persons who have

the opportunity should inculcate the Christian obligation incumbent upon all, of endeavouring to secure for all pure air, pure water, abundant light, proper food and drink, wholesome surroundings, and the greatest possible immunity from infectious disease."—A public meeting was held at Trowbridge on April 3rd, under the presidency of the rector (the Rev. D. Ryder), in support of the movement for erecting a sanatorium at Winsley for tuberculous patients of the poorer class from the counties of Gloucester, Somerset, and Wilts. Dr. Shingleton Smith and Dr. Lionel Weatherly delivered interesting addresses. Dr. Weatherly, the chairman of the executive committee, stated that as a result of negotiations the Home Secretary had informed the committee that provided the money wherewith to erect the sanatorium was subscribed he would advise the King that his consent be given to call the institution the Royal Victoria Memorial Sanatorium for the three counties of Somerset, Gloucester, and Wilts. The announcement was received with great applause. The committee are hopeful that the money will be fully subscribed during the summer and the foundation stone laid. There has been some opposition to the scheme for the erection of this sanatorium on the ground that it would be injurious to the neighbouring residents. This feeling is now fortunately at an end, and Mrs. Lee, one of the objectors, has given £500 towards the sanatorium. The High Sheriff of Wiltshire (Mr. C. Awdry) has promised £250, and there are several promises of £200 and many smaller sums.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Death Certification.

WHEN the House of Commons meets after the Easter recess Lord Hugh Cecil will address a question to the Home Secretary with regard to a certain death certificate in regard to which there has been an allegation of irregularity, and ask him whether he is prepared to take steps, either in regard to this particular certificate or generally, to safeguard the accuracy of certificates of death.

Accidents with Petroleum.

The private Members' Bill for raising the statutory flash-point of petroleum has been introduced again, but there is little prospect of its being discussed and almost none of its being passed. Obviously this and the other subjects connected with the late inquiry by the Select Committee will have to be dealt with, if dealt with at all, on the responsibility of the Government.

Medical Officers of Health.

There has been introduced into the House of Commons a Bill "to amend the law relating to the qualification and tenure of office of medical officers of health, inspectors of nuisances, and sanitary inspectors and to provide for superannuation allowances to such officers and inspectors and for contribution towards such allowances by such officers and inspectors and to make other relative provisions." The Member who introduced the Bill is Sir Francis Powell and among those who back it are Sir Michael Foster, Sir Walter Foster, and Dr. Farquharson.

HOUSE OF COMMONS.

TUESDAY, APRIL 2ND.

Vaccination Prosecutions at Leicester.

SIR JOHN ROLLESTON asked the President of the Local Government Board whether he was aware that, after an interval of 16 years, a number of prosecutions under the Vaccination Acts were now taking place at Leicester; and whether, since the vaccination officer had received no instructions to prosecute from the board of guardians, this officer was acting under direct instructions from the Local Government Board; if so, would he say under what authority the Local Government Board gave such instructions, and if these instructions included proceedings against the parents of the 60,000 children who were liable to them; and if so, whether he would give notification of his intention to the local authorities in order that precautions might be taken to avoid any breach of the peace that might result from prosecutions on so large a scale.—Mr. GRANT LAWSON (for Mr. LONG) replied: I am aware that steps are being taken with a view to enforcing the Vaccination Acts at Leicester. It is the duty of the vaccination officer to take all reasonable steps to put the Acts in force without any instructions from the guardians or the Local Government Board. The Board, through one of their inspectors, have reminded the vaccination officer of his duty in this matter, but they have given him no instructions as regard the particular cases referred to. I understand that the vaccination officer is only proceeding in a limited number of instances and that these are cases of recent default in complying with the law.

Public Baths Closed on Sunday.

Mr. J. F. X. O'BRIEN asked the Lord Advocate whether he was aware that Port Glasgow Town Council had decided to close the public baths on all Sundays throughout the year; and whether, in the interests of public health, and particularly in view of the prevalence of small-pox in the west of Scotland, he would recommend the Port Glasgow local authority to cause the baths to be opened for a reasonable time every Sunday morning.—The LORD ADVOCATE replied: I am informed by the Local Government Board for Scotland that there has not been a single case of small-pox in Port Glasgow. If there had been any outbreak there or in the immediate vicinity there would have been good reason for closing the baths in the interests of public health, not on Sundays only, but throughout the week also. But the Board are informed that the resolution to close the baths on Sundays was with the view to keep down Sunday labour and because the Town Council considered that the Sunday use of the baths did not warrant their being kept open. The matter, however, is to be re-considered.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ADAMS, A. J. BOWMAN, M.R.C.S., L.R.C.P., has been appointed Medical Officer, the Barnes District of the Richmond Union and of the Children's Home, Barnes; also Divisional Surgeon, Metropolitan Police, V and Thames Divisions, stationed at Barnes.

AITKEN, ROBERT Y., M.D. Glasg., M.R.C.S., L.R.C.P. Lond., has been appointed Honorary Assistant Surgeon to the Blackburn and East Lancashire Infirmary.

ASHTON, GEORGE, M.B., Ch.B. Vict., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Bolton Infirmary.

ASTLES, H. B., M.D. St. And., L.R.C.P. Edin., has been appointed a Member of the Dental Board, West Australia.

BANNISTER, MARMADUKE, M.B. Lond., M.R.C.S., has been appointed Honorary Assistant Physician to the Blackburn and East Lancashire Infirmary.

BARBER, G. W., L.R.C.P. Lond., M.R.C.S., has been appointed Railway Medical Officer at Kalgoorlie, West Australia.

BELL, R. HAMILTON, M.A., M.B., B.C. Cantab., has been appointed Physician to Out-patients, Samaritan Free Hospital for Women and Children, Marylebone-road, London.

BLACKBURN, C. E., M.B. Syd., has been appointed Medical Superintendent, Prince Alfred Hospital, Sydney, New South Wales.

BURKITT, G. O. E., L.R.C.P., L.R.C.S. Irel., D.P.H. Lond., has been appointed Aural Surgeon, Perth Public Hospital, West Australia.

CLELAND, J. B., M.B., Ch.M. Syd., has been appointed Pathologist, Prince Alfred Hospital, Sydney, New South Wales.

CLINGAN, G., M.D. Toronto, has been appointed Clinical Assistant to the Chelsea Hospital for Women, Fulham-road, London, S.W.

CRAWFORD, A. D., M.B., C.M. Glasg., has been appointed Certifying Surgeon under the Factory Acts for the Coleshill District of Warwickshire.

DARBYSHIRE, D. E., M.B., Ch.B. Vict., L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer at Carnarvon, West Australia.

DAVIES, LESLIE, M.B. Melb., has been appointed Public Vaccinator for Birchip, Victoria, Australia.

DERRAVIN, A. F., M.B., Ch.B. Melb., has been appointed Resident Medical Officer, Fremantle Public Hospital, West Australia.

EDMUNDS, W., M.A., M.C. Cantab., F.R.C.S., has been appointed Honorary Surgeon to the Tottenham Hospital, The Green, South Tottenham.

FOSTER, ARTHUR, M.D. Edin., has been appointed Honorary Assistant Physician to the Blackburn and East Lancashire Infirmary.

GALT, HUGH, M.B., C.M., F.F.P.S. Glasg., D.P.H. Cantab., has been appointed Medico-legal Examiner for the Crown in Criminal Cases occurring in Glasgow and the Lower Ward of Lanarkshire.

GERKE, T. E., M.R., Ch.B. Melb., has been appointed Public Vaccinator for Bendigo, U.F.S. Medical Institute and Dispensary, Victoria, Australia.

HALFORD, A. C. F., M.D. Melb., has been appointed Medical Officer of Health to the City of Brisbane, Queensland.

HAM, B. B., M.D. Brux., L.R.C.P. Lond., M.R.C.S., D.P.H. Cantab., has been appointed Commissioner of Public Health for Queensland.

HAMILTON, A. A., M.B., Ch.B. Dubl., has been appointed a Member of the South Australia Medical Board.

HANCOCK, H. RUSKIN, L.R.C.P. Irel., M.R.C.S., has been appointed *pro tem.* Medical Officer to the Leicester Isolation Hospital, vice H. G. H. Monk, resigned.

HANDCOCK, C. L., M.B., Ch.M. Syd., has been appointed a Justice of the Peace, Goulburn District, New South Wales.

HARDIE, D., M.D., Ch.M. Aberd., has been appointed a Member of the Board of Health, Queensland.

HARRIS, W. E., M.B. Syd., has been appointed Resident Anæsthetist and Registrar, Prince Alfred Hospital, Sydney, New South Wales.

HARVEY, H. F., M.R.C.S., has been appointed Gynæcologist, Perth Public Hospital, West Australia.

HICKINBOTHAM, J. R., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed District Medical Officer at Newcastle, West Australia.

HORROCKS, HERBERT, M.D. Lond., L.R.C.P., M.R.C.S., has been appointed a Member of the Dental Board, West Australia, and also Assistant Gynæcologist, Perth Public Hospital, West Australia.

HULME, G. F., M.B., C.M., has been appointed Medical Officer of Health for the Urban District of Pelixstowe and Walton, vice C. G. Havell, resigned.

HURST, J. D., M.B. Melb., has been appointed Officer of Health for the Laverton Board of Health, West Australia.

JAMESON, ADAM, M.B., Ch.M. Edin., has been appointed a Member of the Dental Board, West Australia.

JEWELL, C. C., M.B. Lond., M.R.C.S., has been appointed Government Medical Officer and Vaccinator at Hillston, New South Wales.

KELSALL, H. T., M.D. Lond., L.R.C.P., M.R.C.S., has been appointed Ophthalmic Surgeon to Perth Public Hospital, West Australia.

KIRTON, REGINALD GOWER, M.D. Lond., D.P.H. Lond., has been appointed one of the Medical Officers for Plague Duty, Cape of Good Hope.

KNAGGS, SAM T., M.D. Aberd., F.R.C.S. Irel., has been appointed a Member of the Dental Board of New South Wales.

LYONS, M. M., M.B., B.S. Melb., has been appointed Health and Medical Officer at Gladstone, Queensland.

MARTIN, WILLIAM, M.A., B.Sc., M.B., C.M. Glasg., has been appointed Assistant Surgeon to the Cardiff Infirmary, vice John Lynn Thomas.

MCWILLIAMS, G. F., M.B., Ch.B. Melb., has been appointed Physician to the Perth Public Hospital, West Australia.

MILLER, ALEXANDER, M.B., B.C. Cantab., has been appointed Honorary Physician and Surgeon to the Grimsby and District Hospital.

MUIR, J. C., M.B. Melb., has been appointed Public Vaccinator for the Women's Hospital, Melbourne, Australia.

MUNRO, A. W., M.D. Edin., F.R.C.S. Edin., has been appointed Gynæcological Clinical Assistant, Out-patients' Department, Prince Alfred Hospital, Sydney, New South Wales.

O'CONNOR, M., M.B., Ch.B. Dubl., has been appointed Senior Physician, Perth Public Hospital, West Australia.

RANDELL, A. E., M.B., B.S. Melb., has been appointed Assistant Surgeon, Perth Public Hospital, West Australia.

RIDDY, WALTER, M.B., C.M. Edin., has been appointed Honorary Assistant Surgeon at the Blackburn and East Lancashire Infirmary.

ROBINSON, T. H., M.D. Edin., Ch.M., has been appointed Railway Medical Officer at Albany, West Australia.

ROCKETT, P. J. A., M.B., C.B. Melb., has been appointed Public Vaccinator for Maffra, Victoria, Australia.

ROGERS, H. S., M.D. Edin., has been appointed Visitor to the Adelaide and Parkside Lunatic Asylum, South Australia.

ROW, L. E., M.D. Brux., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Assistant Medical Superintendent to the Hospital for the Insane at Goodna, Queensland.

SAW, A. J. H., M.D., B.S. Cantab., has been appointed Surgeon to the Perth Public Hospital, West Australia.

SLATER, ALAN BUTLER, M.B., Ch.B. Edin., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Hospital for Women and Children at Leeds.

SMITH, LEWIS A., M.B. Lond., M.R.C.P., has been appointed Physician to the Poplar Hospital, Blackwall, London.

TAAFFE, O. G., L.R.C.P., L.R.C.S. Edin., has been appointed Assistant Physician, Perth Public Hospital, West Australia.

TAYLER, GEORGE CHRISTOPHER, M.D., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer to the Third District of the Westbury (Wilts) Union.

TRETHOWAN, W., M.B., Ch.M. Aberd., has been appointed Assistant Surgeon, Perth Public Hospital, West Australia.

TROTMAN, FRANK, M.D. Lond., L.R.C.P., M.R.C.S., has been appointed Senior Surgeon, Perth Public Hospital, West Australia.

WHITING, A. J., M.D. Edin., M.R.C.P. Lond., has been appointed Assistant Honorary Physician to the Tottenham Hospital, The Green, South Tottenham.

WILLMOT, ROBERT, F.R.C.S. Edin., M.R.C.S., has been appointed Official Visitor to Hospital for the Insane, New Norfolk, Tasmania.

WILSON, J. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed a Member of the Licensing Court for Warren, New South Wales.

WISE, NICHOLAS VINCENT, L.R.C.P., L.R.C.S. Irel., has been re-appointed Medical Officer for the Second District of the Melksham (Wilts) Union.

YOUNG, H. C. T., M.D. Glasg., Ch.M., has been appointed Gynæcological Clinical Assistant, Out-patients' Department, Prince Alfred Hospital, Sydney, New South Wales.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BEDFORD COUNTY HOSPITAL.—Senior House Surgeon. Salary £100 a year, with apartments, board, and washing. Also House Physician for six months. Salary £35, with board, lodging, and washing.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, single. Salary £100 per annum, with board and residence.

BRENTFORD UNION.—Assistant Medical Superintendent of the Infirmary and Assistant Medical Officer of the Workhouse and Schools at Isleworth. Salary £100 per annum, with furnished apartments in the Infirmary, rations, washing, &c. Candidates must be single.

BRISTOL GENERAL HOSPITAL.—Casualty Assistant House Surgeon. Salary £50 per annum, with board, residence, &c.

CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, 41, Sloane-square, Chelsea, S.W.—Resident Medical Officer and Secretary. Salary £80 per annum, with furnished rooms and allowances.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Resident House Surgeon, unmarried. Salary £150 per annum, with furnished rooms and attendance.

CITY OF LIVERPOOL INFECTIOUS DISEASES HOSPITALS.—Assistant Resident Medical Officer, unmarried. Salary £120 per annum, with board, lodging, and washing.

COSFORD UNION, Suffolk.—Medical Officer and Public Vaccinator. Salary £52 2s. per annum, with fees.

COUNTY BOROUGH OF SOUTH SHIELDS.—Medical Officer of Health. Salary £300 per annum.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's-buildings, Holborn-circus, E.C.—Resident Medical Officer. Salary £120 per annum, with residence, attendance, coals, and gas, and permission to take resident pupils.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Senior Clinical Assistants.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon. Salary £60, with board and lodging.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House Surgeon. Salary £75 per annum, with residence, board, and washing.

ISLE OF WIGHT COUNTY ASYLUM, near Newport, I.W.—Assistant Medical Officer. Salary £100, rising £10 yearly to £150, with board, lodging, washing, &c.

JESSOP HOSPITAL FOR WOMEN, Sheffield.—House Surgeon, unmarried. Salary £75 per annum, with board, lodging, and washing.

KENT COUNTY OPHTHALMIC HOSPITAL, Maidstone.—House Surgeon. Salary £100 per annum, with board, residence, and laundry.

LIVERPOOL HOSPITAL FOR CONSUMPTION.—Resident Medical Officer. Salary £300 per annum, with board and apartments.

LIVERPOOL ROYAL INFIRMARY.—Assistant Honorary Physician.

LIVERPOOL STANLEY HOSPITAL.—Senior House Surgeon. Salary £100. Also Junior House Surgeon. Salary £80, with residence, board, &c.

LONDON HOSPITAL, Whitechapel-road, E.—Obstetric Registrar.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY.—Honorary Assistant Surgeon.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon. Honorarium £50 per annum and board.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Bloomsbury.—Senior and Junior House Physician. Salary respectively £100 and £50 per annum, with board and apartments.

NEWCASTLE-ON-TYNE DISPENSARY.—Two Visiting Medical Assistants. Salary £160 for the first year, and £180 afterwards.

NORTHAMPTON GENERAL INFIRMARY.—Assistant Honorary Physician.

NORTH RIDING INFIRMARY, Middlesbrough-on-Tees.—Assistant House Surgeon. Salary £75 a year, with lodging, board, and washing.

PADDINGTON GREEN CHILDREN'S HOSPITAL, London, W.—House Physician, also House Surgeon, for six months. Salary at the rate of 50 guineas a year, with board and residence.

POPLAR UNION.—Dentist to periodically inspect and to attend to the teeth of all children in the schools, Forest-lane, Forest-gate, E.

ROTHERHAM HOSPITAL.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

ROYAL SEA BATHING HOSPITAL, Margate.—Assistant Resident Surgeon. Salary £60 per annum, with board and residence.

SHEFFIELD ROYAL INFIRMARY.—Honorary Surgeon.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House Surgeon for six months (renewable). Salary at the rate of £50 per annum, with board and residence.

STOCKPORT INFIRMARY.—House Surgeon. Salary £100, with residence, board, and washing. Also Junior Assistant House Surgeon for six months. Salary at the rate of £24 per annum, with board, washing, and residence.

SUNDERLAND INFIRMARY.—House Physician and House Surgeon. Salary £100, with board and residence, increasing by £15 annually for three years.

SWANSEA GENERAL AND EYE HOSPITAL.—Resident Medical Officer. Salary £75 per annum, with board, apartments, washing, and attendance.

THE CHIEF INSPECTOR OF FACTORIES gives notice of Vacancies for Certifying Surgeons under the Factory Acts at Daventry, in the county of Northampton, and at Magherafelt, in the county of Londonderry.

TOWNSHIP OF TOXTETH PARK.—Two Resident Medical Officers for the Workhouse and Infirmary. Salary £100 per annum each, with board, washing, and apartments.

WEST BROMWICH UNION.—Non-resident Workhouse Medical Officer. Salary £100 per annum. Also Assistant Medical Officer. Salary £100 per annum, and £75 in lieu of apartments, board, &c.

WEST HAM HOSPITAL, Stratford, E.—Junior House Surgeon. Salary £75 per annum, with board, residence, &c.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY.—House Surgeon. Salary £120 per year and £30 per year for dispensing, with furnished apartments and attendance.

Births, Marriages, and Deaths.

BIRTHS.

GALLOWAY.—On April 6th, at Harley-street, W., the wife of James Galloway, M.D., F.R.C.P., of a daughter.

MANNING.—On April 5th, at Hoddesdon, Herts, the wife of Thomas Davys Manning, M.B., B.S., of a son (Roger Davys).

POOLE.—On April 6th, at Hemplow, South Teddington, Hampton Wick, the wife of J. Copeland Poole, M.R.C.S., L.R.C.P., of a son.

MARRIAGE.

RAYNER—TAYLOR.—On April 2nd, at St. Marylebone parish church, Surgeon-Major Hugh Rayner, Royal Horse Guards, to Eva, younger daughter of John H. Taylor, of Devonshire-place, W.

DEATHS.

DURRANT.—On April 6th, at Northgate-street, Ipswich, Christopher Mercer Durrant, M.D., F.R.C.P., and J.P. for the county of Suffolk, in his 87th year.

SYKES.—On April 1st, at his residence in Doncaster, John Sykes, M.D., Edin., F.R.C.P. Lond., J.P., aged 84 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

MYSTERY AND MARRIAGE.

A MEDICAL correspondent forwards to us a mysterious circular which was recently sent to him as he thinks it might be of interest to us. The circular is printed in three languages—namely, German, French, and English. The English portion runs as follows:—

"Since it may be that this circular could render any great service to any person, I publish it in that way.

"A very rich count and of high position, 40 years old, looks by special motifs, a lady of high classe and first rate education as wife, strangers preferred. She must have (principal condition).

"He obliges himself either to pay a great fee or to make a considerable donation for the nomination. My name secures the greatest discretion in this earnst matter."

The "principal condition" is, it will be observed, left out; however, an inclosed slip informs us that further details can be obtained from a ship captain giving an address in Trieste. All sorts of explanations might be given of the omitted passage as to the wife. The German version says simply "she must." Possibly the very rich count is like the prince in so many folk-tales—generally compelled to go about in the shape of a boar or a serpent or some other unpleasant animal and wishes to be certain that his wife should be a lady of equable mind, or, like the gnome in Mr. W. S. Gilbert's story, his beauty and stature may depend upon his not washing. There is, however, a slip of green paper which perhaps explains matters. On this are printed three lines as follows:

In der Hoffnung (auf Kind)
En ceinte dun enfant
Interesting state (w. child).

We presume the very rich count wants an heir, if not from his own loins, then from those of someone else.

HOLLANDS AND COCOA IN GOUT.

To the Editors of THE LANCET.

SIRS,—Can any of your readers inform a medical colleague if they have found the use of hollands of benefit in modified gout of the extremities, fingers, and wrists, and whether cocoa is injurious in the gouty diathesis? I have been in the habit latterly of taking a cup of cocoa the last thing at night and suffer from pain and stiffness of the finger-joints, especially in the morning. I have entirely given up wines or spirits, only taking a glass of light bitter ale with my dinner. I understand at Carlsbad beer is permitted in moderation.

I am, Sirs, yours faithfully,
April 4th, 1901. EXPERIENTIA DOCET.

THE SALT CURE.

To the Editors of THE LANCET.

SIRS,—In a recent number of the *Contemporary Review* appears an article headed "The Salt Cure" and signed by Claire de Pratz. It describes in a popular manner the treatment of neurasthenia by means of the daily hypodermic injection of a few grammes of solution of neutral salts. The tonic effects are said to be very remarkable. Dr. Jules Oberon, Dr. Maurice de Fleury, and Dr. Albert Robin are the authorities quoted. Can you or any of your readers give me any information about this system? Has it been tried in England?

I am, Sirs, yours faithfully,
March 30th, 1901. S. W.

MEDICAL FEES AT CORONERS' INQUESTS.

To the Editors of THE LANCET.

SIRS,—Can you inform me whether it is the custom to pay a medical man two guineas only when an inquest has been adjourned until a post-mortem examination has been made? I recently had to attend an inquest, make a post-mortem examination, and attend again on another day at the adjourned inquest. I expected to be paid three guineas, but the coroner said he could only pay two, no matter how often the inquest might be adjourned.

I am, Sirs, yours faithfully,
New Seaham, co. Durham, April 3rd, 1901. E. J. HOWLEY.

**** It is generally maintained that there is not, and cannot be under the Coroners Act, any fee for attending an adjourned inquest. The question seldom arises, the medical man being, as a rule, only required to attend once. We have already dealt with the subject very fully in two leading articles—one on Nov. 3rd, 1900, p. 1285, and the other on Nov. 24th, 1900, p. 1511. In the second of these it was mentioned that Dr. John Clark of Cleator Moor, Cumberland, after attending an adjourned inquest was unable to obtain more than two guineas from the coroner, but he subsequently succeeded in getting an extra guinea on applying to the county council. In a second case of attendance at an adjourned inquest Dr. Clark again claimed an extra fee from the county council, but this time without success. He thereupon applied to the Home Office, and after the lapse of a few months he received from the coroner a cheque for one guinea. In THE LANCET of Dec. 1st, 1900, p. 1613, we published a letter on the subject from the author of "A Brief Abstract of the Laws particularly Applicable to the Medical Profession" in Messrs. Burroughs and Wellcome's Medical Diary. This gentleman quoted the following from Section 22 of the Coroners Act, 1887: "A legally qualified medical practitioner ..... shall be entitled to receive such remuneration as follows; that is to say, (*a*) for attending to give evidence at any inquest whereat no post-mortem examination has been made by such practitioner, one guinea; and (*b*) for making a post-mortem examination of the body of the deceased, with or without an analysis of the contents of the stomach or intestines, and for attending to give evidence thereon, two guineas." From this he argues that if it had been intended that no more than two guineas should ever become payable the two subsections would have had the word "or" between them and not the word "and." Moreover, he says, it cannot be argued that the evidence which the medical man would give under subsection (*b*) is covered by subsection (*a*).—ED. L.

"THE PRINCE CHRISTIAN VICTOR MEMORIAL."

THE following further sums, amongst others, have been received by the honorary secretaries of the Prince Christian Victor Memorial Fund (Office, Horse Guards, Whitehall, S.W.):—£10 10*s.* each, Mr. T. Mark Hovell, Sir E. H. Sieveking, and Sir Thomas Smith, Bart.; £10, Sir Thomas Barlow; £5 5*s.*, Mr. H. W. Allingham; £5, Sir W. H. Broadbent, Bart., Mr. G. Anderson Crichett, and Dr. T. J. Maclagan.

MEDICAL MEN AND HOSPITAL BOARDS.

To the Editors of THE LANCET.

SIRS,—I feel like an old hen picking up crumbs in a yard, yet there are such valuable crumbs in THE LANCET that one often gets a good picking. If the profession would follow THE LANCET and the *British Medical Journal* as organs of its central government the result, I am sure, would be admirable. I read that Sir J. Crichton Browne repudiates the statement that medical influence on a board would convert a hospital into a mere scientific laboratory. But why should not a hospital, or any other place attended by medical men, be a scientific laboratory? The medical profession is a scientific profession working for the welfare and comfort of all and using the discoveries of science for meritorious ends.

I am, Sirs, yours faithfully,
Kew, Surrey, March 31st, 1901. JOHN A. HOME.

A QUESTION OF FEES.

To the Editors of THE LANCET.

SIRS,—Would you kindly inform me as to the following question of fees? Last year I examined some volunteers for the army and at Christmas sent the account in to the officer commanding for 5*s.* each man. He has kindly sent me 2*s.* 6*d.* for each and informs me that that is the amount allowed by the battalion. I took that amount off my bill and returned it showing the balance due to me. Did I do right? Hoping the answer may be of service to other medical men,

I am, Sirs, yours faithfully,
SUBSCRIBER.

**** We understand that the commanding officer has no discretion to increase the fee.—ED. L.

A WARNING TO PUBLIC VACCINATORS.

To the Editors of THE LANCET.

SIRS,—We public vaccinators are a patient race, yet we have had that imposed upon us which might indeed a saint provoke. We are now required to write all our notices in duplicate, and books with alternate thick and thin pages with an accompanying page of carbon paper are supplied as a means to that desired end. So I obediently (as is my wont) set myself to work, and whilst so engaged was called away to see a patient. Instead of being attended to by that gravity that I expected and which my words merited I was distressed by an almost unbecoming exhibition of merriment on the face of my patient. I cast about to solve this incongruous and unexpected overflow of spirits. I had not far to seek. My hands were as black as if I had been cleaning a grate and my nose and eyes, which had been itching whilst bent over this vile carbon paper, were of the same tint as my hands. The lines of Goldsmith—

"The swain mistrustless of his smutted face
While secret laughter tittered round the place"—

were, indeed, too applicable to myself. Let this letter be a warning to others to bear in mind the unexpected results of this carbon tissue lest they also become a cause of merriment in others.

I am, Sirs, yours faithfully,
April 6th, 1901. P. V.

"ELECTRICALLY LIGHTED BRUNTON'S AURISCOPE."

To the Editors of THE LANCET.

SIRS,—Referring to Messrs. John Weiss and Son's letter in THE LANCET of March 30th, p. 933, I have seen the figures of the instrument they mention in their catalogue. Anyone must see, however, at a glance that my auriscope differs very materially from theirs; thus—1. My instrument is adjustable to the trumpet of any Brunton's auriscope. 2. The trumpet of the auriscope does not require to be made removable to admit of my electric lamp being fixed in position. 3. The apparatus can be used with any battery not too strong for the lamp, but—and this is one of my great points—it is specially adapted to the cheap dry-cell batteries now sold which cost only 2*s.* 6*d.*

each. 4. The electric lamps are also very cheap and can be screwed into position should a new one be required by two or three turns. 5. The wires connecting the auriscope to the battery are fixed instantly. The terminals, moreover, are so arranged that the battery cannot possibly run down when not in use. 6. My electric lamp can be used for either the auriscope or the holder that is sold with the battery. All, therefore, that is needed for my auriscope after first purchase of the instrument and battery is the renewal of the dry cell at a cost of only 2s. 6d. and after long periods a new lamp also at a small cost. I am, Sirs, yours faithfully,

GEORGE H. VOS, M.B. Cantab.

Tottenham, N., April 3rd, 1901.

"PLACE OF RESIDENCE FOR A RETIRED SURGEON."

To the Editors of THE LANCET.

SIRS,—May I through your columns thank "F. H. A." for his kind advice in THE LANCET of April 6th, p. 1056, and at the same time ask, are not Bournemouth, Branksome, and the neighbourhood very hot and relaxing in summer, especially after the keen cold of the eastern counties? I am, Sirs, yours faithfully,

April 8th, 1901. P. P.

THE TEMPERANCE QUESTION.

To the Editors of THE LANCET.

SIRS,—Would you or any of your readers kindly let me know of the latest and most reliable work on the temperance question from a medical point of view—whether moderation or total abstinence is the most healthy system? I am, Sirs, yours faithfully,

March 29th, 1901. APRIL.

*** Among publications written from the total abstinence point of view mention may be made of several brought out by Sir Benjamin Ward Richardson, such as "Brief Notes for Temperance Teachers," "Alcohol: Its Action and its Use" (Six Cantor Lectures delivered before the Society of Arts), "Moderate Drinking: For and Against" (a lecture delivered in Exeter Hall), "Results of Researches on Alcohol" (an address delivered at Oxford), "The Action of Alcohol on the Mind" (an address delivered at Cambridge). These five appeared between 1874 and 1883. Some of them may be obtained from the Church of England Temperance Society, 4, The Sanctuary, Westminster. Dr. Norman Kerr was also the author of several works of the same kind, including "The Action of Alcoholic Liquors on Health," 1876: "Wines," 1892; "The Truth about Alcohol," 1885. See also "L'Alcool et L'Alcoolisme," by Dr. Triboulet and Dr. Mathieu (Paris: G. Carré et C. Naud), reviewed in THE LANCET of Jan. 19th, 1901.—ED. L.

A WARNING.

To the Editors of THE LANCET.

SIRS,—I think it well to warn my fellow practitioners about a person who called on me recently. She was a tall, dark, lady-like woman and said that she was a "Red Cross" nurse of 19 years' standing. She was anxious to find accommodation in the house of a medical man for her brother, Captain Stanley, who had been severely wounded in South Africa, having had six bullets in him, four of which had been removed, while the remaining two (in his lungs) Mr. Treves was going to try to relieve him of. She herself was all through the siege of Ladysmith, and as she was returning to South Africa on Wednesday, April 10th, she was most anxious to arrange matters for her brother before leaving England. The brother, she said, was at present on board ship waiting to be removed to a nursing home, or preferably to the private house of a medical man. Whilst calling at the Herbert Hospital, where she was well known, she happened to meet a Dr. Bateman of Blackheath, who told her that he thought that I took in resident patients. Hence her visit. Money was no object.

I told my visitor that there was no one called "Dr. Bateman" at Blackheath and showed her that there were no such name and address in the Medical Directory. But she reiterated the statement. As to references, there were plenty and good ones, even Lord Roberts himself, who was much interested about her brother's case. On her return she said that she would "ring up" Sir William Macjormac and that he would at once write to me about the matter. Moreover, the money would be paid in advance. Also she had been dining with Lord and Lady Dundonald a few days ago, whose entry into Ladysmith she should never forget. Previously to coming to me she said that she had met a nurse from Guy's Hospital who showed her the way to my house. I have since found out that she told a very similar story to this nurse, who has charge of one of my patients, with this addition—that unfortunately she had come away without her purse, but that if she could be assisted the amount would be promptly returned. I am glad to say that the nurse was not caught. This caution may be of service to some of your readers.

I am, Sirs, yours faithfully,

April 8th. F. G. LARKIN.

UNPLEASANT ENTERPRISE.

WE have received from a correspondent a letter sent to him by the Law Accident Insurance Society, which society sent him at the same time a reprint of a paragraph from the *Yorkshire Evening Post* and a form to fill up for the insurance by an employer of his employés. The cutting refers to the death of certain children owing to the mistake of a dispenser. We think it rather hard that this man's case, with his full name and the fact of his arrest, should be circulated as an advertisement by the Law Accident Insurance Society. He is under remand, and his serious trouble, whether he brought it upon himself by careless conduct or no, should be respected. Nor do we see how any premium paid by an employer would ever protect a dispenser from a charge of manslaughter if he made a fatal mistake in dispensing. We agree with our correspondent that the enterprise of the Law Accident Insurance Society is in this case unfavourably displayed.

Nemo.—We are not quite certain what it is that our correspondent objects to, for he does not draw our attention to any particular point in the advertisement. There can be no strict rule about the propriety of writing books addressed to the public or about advertising those books in the lay press. If a book gives, or is intended to give, useful information to the public and does not invite the public directly or indirectly to consult the author or any particular medical man, more latitude can be allowed in the matter of advertisements. Because a medical man may not appeal to the public in his professional character it does not follow that he must cut himself off entirely from the public.

Rob.—1. "The A.B.C. of the X Rays," by W. H. Meadowcroft. London: Simpkin, Marshall, Hamilton, Kent, and Co. Price 4s. 2. "The Roentgen Rays in Medical Work," by David Walsh, M.D. Edin. London: Baillière, Tindall, and Cox. The former of these books is a very simple popular work. The latter is a useful account of the application of the rays to medical work.

G.P.—It may be very dangerous to prescribe for a patient on the statement of his wife. If the diagnosis of the case was originally made by the medical man he might trust to the patient's wife, if she seemed a sensible woman, for a report upon symptoms, but he certainly should not revise his course of treatment without seeing the patient.

A. G. C.—An account of Marochetti's observations appeared in the *Westminster Review* for 1824 and in Abhandl. über die Wasserscheu (1843). So far as we know nothing more is known of the treatment.

Halifax.—We cannot advise our correspondent to write in a lay paper upon a matter the interest of which is purely medical. Such a proceeding would certainly be unprofessional.

Lactic Acid.—We do not think the public dissemination of the testimonial advisable. There is no evidence that the medical man in question has authorised the circular.

Mr. N. A. Butterfield.—"Diseases of the Lungs," by J. K. Fowler, M.D., F.R.C.P., and R. J. Godlee, F.R.C.S., (Longmans and Co., London), price 25s.

ERRATUM.—In the letter in our correspondence columns, headed "The Case of an Election," THE LANCET, April 6th, p. 1044, second line, "at the above hospital," should read, *at the Samaritan (Free) Hospital for Women and Children.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 11th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
April 5	30·10	S.E.	...	70	47	44	42	44	Overcast
,, 6	29·95	S.E.	...	68	57	44	43	45	Raining
,, 7	29·71	S.W.	0·14	100	62	45	52	54	Fine
,, 8	29·57	S.W.	0·07	105	58	49	47	51	Cloudy
,, 9	29·67	S.W.	0·06	106	60	44	45	49	Fine
,, 10	29·42	S.W.	0·06	81	52	42	45	47	Raining
,, 11	29·45	SSW	0·25	54	48	44	47	48	Raining

During the week marked copies of the following newspapers have been received:—*Bolton Chronicle, Cambria Leader, Manchester Courier, Newcastle Leader, East London Observer, Birmingham Gazette, Kent Times, Court Journal, Middlesex Gazette, South Wales Daily News, Blackburn Weekly Standard, Leicester Advertiser, Cardiff Echo, East Anglian Times, Glasgow Herald, Sheffield Daily Telegraph, Yorkshire Post, Bristol Mercury, Preston Guardian, Western Weekly Mercury (Plymouth), Hampshire Telegraph, The Mail (Cookstown), Hereford Journal, Plymouth Morning News, Croydon Advertiser, Rochdale Times, Surrey Advertiser, Widnes Weekly News, Gloucester Journal, Liverpool Daily Post, Leeds Mercury, Times of India, Pioneer Mail, Architect, Citizen, Scotsman, Builder, Jackson's Oxford Journal, Mining Journal, Darlington Star, Worcester Chronicle, Weekly News (Oldbury), Northampton Reporter, Derbyshire Times, United Service Gazette, Indicator, Norfolk Weekly Standard, Daylight, Literary Digest, Adelaide Advertiser, Local Government Journal, Local Government Chronicle, City Press, Hertfordshire Mercury, Boston Guardian, South African News, The People, Boston Independent, Reading Mercury, Public Health, Sanitary Record, &c., &c.*

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (15th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (16th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

WEDNESDAY (17th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.).

THURSDAY (18th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

FRIDAY (19th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central, (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

SATURDAY (20th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (16th).—PATHOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—Mr. Fouterton: Sporothrix Schenkii.—Mr. Pakes: Observations on the Life-history of the Bacillus Coli Communis.—Dr. Still: Tuberculosis of the Female Genital Organs in Childhood.—Dr. M. Fletcher: Adeno-sarcoma of the Kidney.—Mr. Goadby: Nematode Worm in Hen's Egg.—Dr. P. Weber: Cancerous and Calculous Disease of the Pancreas with Suppuration.

SOCIETY FOR THE STUDY OF INEBRIETY (Medical Society's Rooms, 11, Chandos-street, Cavendish-square, W.).—3.30 P.M. Council Meeting. 4 P.M. Dr. C. R. Drysdale: Recent Doctrines concerning Alcohol.—(1) Is it a true food? (2) Is it a good remedy in disease?

CHELSEA CLINICAL SOCIETY (Holy Trinity Parish Hall, Pavilion-road, Sloane-square).—8.30 P.M. Papers:—Mr. J. F. Palmer: Cystic Disease of the Chorion.—Dr. A. B. Blacker: Light Treatment, with demonstration of Finsen's Apparatus and illustrated with lantern slides.

WEDNESDAY (17th).—HUNTERIAN SOCIETY (London Institution, Finsbury-circus, E.C.).—8 P.M. Clinical Evening.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Papers:—Dr. S. Thompson: The Climate of Algiers.—Dr. Mahomed (Bournemouth): Polypharmacy in Medicine.

THURSDAY (18th).—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Mr. J. J. Clarke: Practical Observations on Antiseptic Surgery. 9 P.M. Clinical Cases.

FRIDAY (19th).—EPIDEMIOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Papers:—Dr. L. Sambon: The Principles determining the Geographical Distribution of Disease.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN (North-Eastern Hospital for Children, Hackney-road, N.E.).—5.30 P.M. Cases and Specimens will be shown by Dr. A. E. Sansom, Dr. J. Taylor and Dr. J. H. Sequeira, Mr. A. B. Roxburgh (introduced), Mr. D. Drew, and Dr. J. F. Parkinson. Paper:—Dr. T. Fisher: Brief Note on a Case of Swelling of the Eyelids after a Bath.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (15th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. A. Whitfield: Consultation. (Skin.)

TUESDAY (16th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. S. Taylor: Consultation. (Medical.)

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Dr. A. Macfadyen: Cellular Physiology, with Special Reference to Enzymes and Ferments.

WEDNESDAY (17th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. P. W. de Santi: Consultation. (Surgical.)

THE SANITARY INSTITUTE, (Parkes Museum, Margaret-street, W.).—8 P.M. Discussion on Sewage Purification and Standards of Purity (opened by Dr. H. Kenwood and Dr. W. Butler.

THURSDAY (18th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Consultation. (Surgical.)

FRIDAY (19th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. E. Clarke: Consultation. (Eye.)

ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Prof J. J. Thomson The Existence of Bodies smaller than Atoms.

SATURDAY (20th).—ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. J. Y. Buchanan: Climate, its Cause and Effects.

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